CHILTON'S

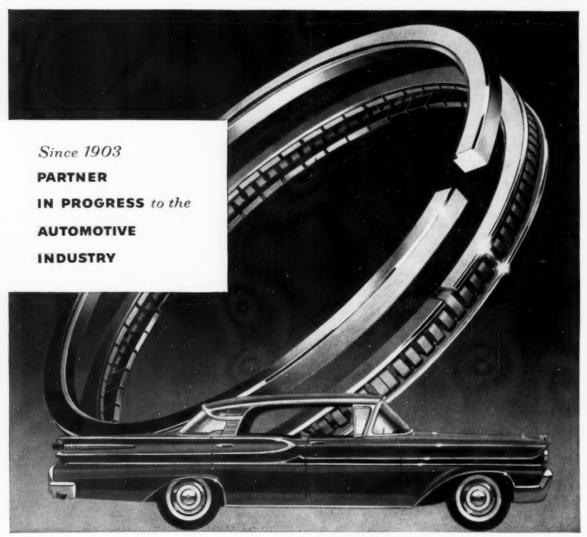
# MOTOR AGE

April 1958





SEVENTH ANNUAL SPECIFICATIONS ISSUE



MERCURY—One of the outstanding cars using Perfect Circle piston rings for both original equipment and replacement service

Behind the overwhelming preference for Perfect Circle products is a heritage of leadership in research, engineering and manufacturing...factors that work constantly for the benefit of both the automotive industry and the motoring public.

Because they are specifically engineered to meet the exacting demands of modern highcompression engines, Perfect Circle piston rings are preferred by more engine manufacturers for original equipment and for replacement service than any other brand.

For all your engine overhauls, do as the manufacturers do. Specify Perfect Circles! PC 2-in-1 Chrome piston rings more than double the life of cylinders, pistons and rings, assure thousands of extra miles of sustained power with lasting oil economy. Perfect Circle Corporation, Hagerstown, Ind.; The Perfect Circle Co., Ltd., Don Mills, Ontario, Canada.

PERFECT CIRCLE PISTON RINGS

# SHERLOCK MCKANICK and MIKE

... SHOW YOU HOW TO GET THE MOST OUT OF THIS HELPFUL ISSUE OF MOTOR AGE

THIS APRIL ISSUE OF MOTOR AGE IS MARVELOUS! WHAT'S
IT ALL
ABOUT,
SHERLOCK?

THESE CHILTON SPECIFICATION PAGES ARE THE MOST USEFUL THING ANY MECHANIC

CAN KEEP IN

NEW 1958 TUNE-UP INFORMATION? OH BOY! -AND BEST OF ALL, BLUE STREAK
HAS PUT THEIR LISTINGS OF
IGNITION PARTS, AND BATTERY
CABLES RIGHT NEXT TO THE
MOTOR AGE TUNE-UP

SPECS...
HEY!
LET'S HAVE
A LOOK!

.. SO, THE MECHANIC CAN EASILY LOCATE THE **BLUE STREAK** PART TO USE FOR THE

CORRESPONDING
TUNE-UP OPERATION

SWELL! LET ME . SEE.. - AND THAT GOES FOR HYGRADE TOO!

-ER,COULD I HAVE A LOOK

REPLACEMENT
PARTS!...

IMAGINE, MIKE, OVER 50,000 BUSY
DEALERS LOOK TO BLUE STREAK
AND HYGRADE FOR THE WORLD'S

JIMMINY, COULDN'T I PLEASE



...PLUS THE MOST HELPFUL CATALOGUES AND TECHNICAL BULLETINS IN THE INDUSTRY!

I AM A
BLUE STREAK
DEALER, SHERLOCK,
CAN I TAKE A
PEEK AT...?

DEALERS: IF YOU WANT THESE SPECS
IN WALL CHART FORM, WRITE FOR FREE
TUNE-UP WALL CHART F-640
STANDARD MOTOR PRODUCTS, INC.

37-18 NORTHERN BLVD. LONG ISLAND CITY, NEW YORK.

SIGH!

YES, OPERATOR —
PHILADELPHIA! HELLO,
MOTOR AGE? — HAVE
YOU GOT AN EXTRA
COPY OF THE APRIL
ISSUE?

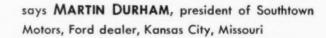


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Page 59—BLUE STREAK Wire and Coble • Page 61—BLUE STREAK Ignition Parts • Page 79—HYGRADE Carburgior, Jiffy Kits
MANUFACTURERS OF REGULATORS • COILS • CONDENSERS • Wire and Cable • CONTACT POINTS • SWITCHES •

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"We've been using Commercial Credit Plan for 13 years, and discovered years ago that it pays our men to push the house plan while they sell the car. Customers like the extra protection features. Merchandising and sales training provided by Commercial Credit help our salesmen present the package deal properly and effectively. On top of this, we like the way Commercial Credit helps us follow up on pay-out customers. And the added service business we get as a result of the Plan is a welcome extra source of income."

# Commercial Credit dealers are <u>successful</u> dealers

Write or call our nearest office for complete information on the benefits of COMMERCIAL CREDIT PLAN. Why not do it today?



A service offered through subsidiaries of the Commercial Credit Company, Baltimore . . . Capital and Surplus over \$200,000,000 . . . offices in principal cities of the United States and Canada.



CUSTOMERS LOVE YOU WHEN YOU REPLACE WITH AMERICA'S BEST-KNOWN BEARING...JUST TELL 'EM IT'S...

TIMKEN
TAPERED ROLLER BEARINGS



A standard in garages and service stations everywhere, the Cordomatic Drop Light Reel outlasts a dozen drop cords, saves mechanics' valuable time, is tow in cost.

Mounts easily on wall or ceiling, locks and releases at any desired length. Works like a window shade.

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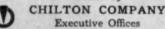
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**APRIL. 1958** 

Vol. 77, No. 5

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# Schrader Gauges...and proper gauging... build customer good will and profit!



It pays to let your customers know you care about tire service... now more than ever with new tubeless tires. These Schrader products help you give complete and accurate tire service... build customer good will... make extra profits. Order these genuine Schrader quality products today. Be sure you specify Schrader by name.

#### A. SCHRADER'S SON

Division of Scovill Manufacturing Co., Inc. 470 Vanderbilt Avenue, Brooklyn 38, N. Y.

FIRST NAME IN TIRE VALVES

FOR ORIGINAL EQUIPMENT AND REPLACEMENT



# MOTOR AGE MEMO

# Snow Crop, Snow Crop, Snow Crop!

No, this isn't a TV commercial. Rather it is a reminder of the opportunity to help your customers and dig up a little scratch for yourself. Profits, that is.

Even though the spring buds are popping now, we should harken back to the days when most of the country was smothered in snow. Hard driving and beaten up roads have taken their toll, and the amount of vehicle repair work waiting to be done is great, challenging and profit-promising.

### Yours For The Seeking

The snow crop of business is yours for the seeking. Look for trouble in front end alignment, steering geometry, bent tie rods and steering arms. Then, broken springs and twisted frames. Tires took a beating and should be checked, balanced, rotated or replaced.

There appears to be a great need for radiator and cooling system service. Drain out the winter weary anti-freeze and sweeten the cooling system, adding a reliable inhibitor. Check hoses, fan belts and clamps. Examine heater hoses and prepare it for its summer vacation.

From what we have observed, automatic transmissions took a heavy beating in the snow storms. This is some of the work to be done. Check for oil leaks and front and rear seals. Adjust the bands, check the linkage. In some cases, you may have to replace the clutch. Now, too, is the time to repack the universal joints. Many mechanics overlook

these because the drive shaft must be taken out to properly lubricate the joints.

The snow crop of body repairs is a huge one. The endless toll of body dents and scratches resulting from minor traffic brushes will have to be cleaned up. Trim should be cleaned of stains from salted roads.

Here's to you and a busy spring season.

#### Dividends For You

Here's a dividend for you. Motor Age Field Representatives, or Western Union, have qualified that you have one or more mechanics and the equipment necessary to do a substantial amount of automotive service work.

Because you have been qualified as one of the volume shops and receive Motor Age, you are eligible to become a member of the Automotive Service League.

Membership is open only to automotive service outlets who have qualified as professional service shops contributing to at least 80 per cent of the country's automotive service work.

Identify yourself with the League. There are no dues or assessments. To receive your membership plaque, at no cost, mail the postcard which appears on page 101.

Faithfully yours,

Frank P. lighe.

# What do you mean

# WORN SHOCKS CAUSED THIS?



The left front wheel hit a rut in the road. The car came crashing down on its springs, then bounced hard. The rebound lifted the rear wheels right off the road, and the car skidded wildly out of control. Another accident caused by worn shock absorbers.

Shock absorbers do far more than cushion the ride. They stabilize a car, keep wheels from bouncing off the road, prevent erratic steering and side sway. They are vitally important to car control and safety.

When you replace worn shocks with new Monro-

Matics, your customers get an *extra* measure of safety...as well as a smooth, comfortable ride. They're the only shocks with automatic adjustment for all roads, all loads.

When you sell Monro-Matics you sell the shock that's first in replacement sales and used as original equipment on more makes of cars than any other brand.

You sell safety when you sell Monro-Matic shock absorbers . . . and customers are more safety conscious than ever before!

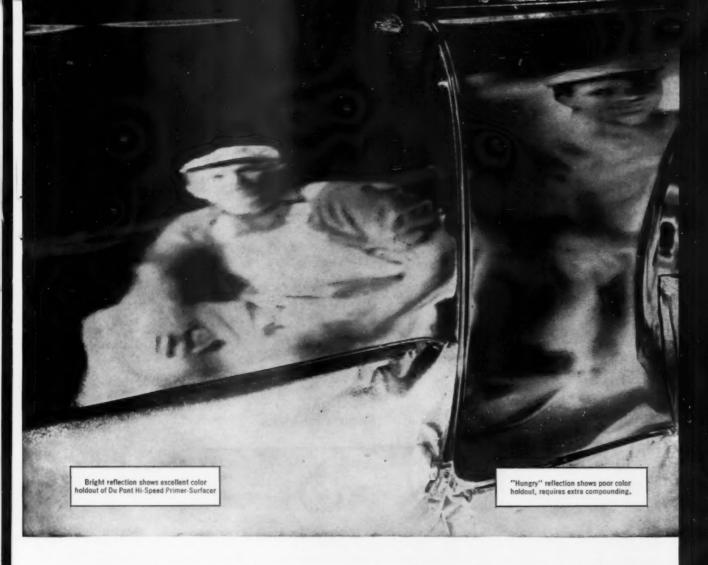
Monroe Auto Equipment Company • MONROE, MICHIGAN

In Canada . Monroe-Acme, Ltd., Toronto

MONROE World's largest maker of ride control products

Monro-Matic Shock Absorbers





# Reflection test shows how primer-surfacer saves on compounding

• To cut down on compounding time test your primer-surfacer for color holdout. Notice how color over Du Pont Hi-Speed Lacquer-Type Primer-Surfacer has a uniformly high gloss—no sinking in, no "hungry" spots. This beautiful color holdout is one of your greatest economies with Hi-Speed Primer-Surfacer. You get a high gloss with less rubbing. And you save four other ways, too. Hi-Speed Primer-Surfacer goes on fast, fills fast, dries fast, sands fast. It gives you the finest balance of money-saving features in any primer-surfacer. Yet, because it reduces up to 2 to 1, it actually costs less than many so-called "bargain" primers. Ask for Du Pont Hi-Speed Lacquer-Type Primer-Surfacer.

Fast-drying
Easy-sanding
Money-saving



BETTER THINGS FOR BETTER LIVING

HI-SPEED PRIMER-SURFACER

(Lacquer-Type)

DU PONT REFINISHING MATERIALS

# RAMBLER AMERICAN





Other Rambler cars using products of Auto-Lite are the Ambassador V-8, the Rambler Rebel V-8, and the Rambler Economy-6.

# ...equipped with Auto-Lite Spark Plugs and Batteries



Auto-Lite welcomes the new Rambler American to the growing family of fine cars choosing Auto-Lite products for original equipment. We take great pride in the fact that Auto-Lite Spark Plugs and Auto-Lite Batteries are contributing to the proven dependability, performance and economy of this

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For over 47 years such votes of confidence in Auto-Lite quality and performance have accelerated Auto-Lite progress and have made Auto-Lite one of the most widely accepted names in America.

THE ELECTRIC AUTO-LITE COMPANY, TOLEDO 1, OHIO



SPARK PLUGS - BATTERIES - BUMPERS & GRILLES - GENERATORS - IGNITION UNITS INSTRUMENTS & GAUGES - METAL FABRICATED ASSEMBLIES - SCUFF PLATES LIGHTING UNITS - HORNS - AUTOMOTIVE FRACTIONAL MOTORS PLASTICS - STARTING MOTORS - SPEEDOMETERS - SPEEDOMETER CABLE SEAT AND WINDOW MOVING MECHANISMS - SWITCHES - WINDSHIELD WIPERS

WIRE & CABLE - GRAY IRON CASTINGS . . . ZINC AND ALUMINUM DIE CASTINGS

Now...you can

get your

# Magic Trick!

## AMAZE! BAFFLE! MYSTIFY! ENTERTAIN!

Your customers, family and friends
PEDRICK WILL SEND YOU THIS TERRIFIC MAGIC TRICK
Absolutely Free..."THE VANISHING HALF DOLLAR"



Borrow a half dollar; cover the coin with a handkerchief



Hold half dollar inside handkerchief over glass of water; tell him to let coin drop into glass



Remove the handkerchief from over the glass and . . . PRESTO . . . . the half dollar is gonell You can pour out the water and show that glass is really empty!

WILKENING MANUFACTURING CO.

2000 So. 71st Street

Philadelphia 42, Pa.

YESH I ant Pedrick to make me a magician.

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COLUMNIA

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PEDRICK WILL SEND YOU THIS REAL "VANISHING

HALF DOLLAR" MAGIC TRICK Absolutely Free ...

Fill Out and Mail CouponIII

# be a real MAGICIAN!

# Gerick FORMFLEX CHROME PISTON RINGS

MAKE YOU LOOK LIKE A MAGICIAN, TOO... With these exclusive Pedrick features, you will produce wonderful pep and power, plus real oil and fuel savings, for your happy customers!



# PEDRICK'S EXCLUSIVE

a peripheral abutment type expander pioneered by Pedrick and today the most imitated feature in oil control rings. It provides a soft but positive and uniform pressure outward at every point around the circumference of the ring, assuring the utmost conformability.



#### PEDRICK'S MORE FLEXIBLE STEEL RAILS

Because of the "Equalizer," and its equal pressure, the ring rails can be made radially thinner, and therefore more flexible, increasing the ability of the oil control ring to conform, no matter how worn the cylinder walls are.



#### PEDRICK FORMFLEX CONSTRUCTION, WITH ITS EQUAL PRESSURE EVERYWHERE, MEANS A MORE PERFECT SEAL

And . . . compression rings and oil control ring rails are faced with SOLID CHROME, can be counted on to last 2 to 4 times longer!!

Pedrick Performance Makes You A Magician!



WILKENING MANUFACTURING COMPANY, Philadelphia 42, Pa. BI CANADA: Wilheston Mig. Co. (Consodel, Ind., Toronto

# Now you can check rear lights from the driver's seat





# with this New % TELLERSCOPE

- · saves steps · saves time
- increases lamp sales

when you order a case of G-E All-Weather Headlamps

Fasten a TELLERSCOPE next to the door track of your lube bay. It sticks to any wall surface and has a 6" wire shaft that allows full swivel for adjustment. Before backing a car off the lift, glance at the TELLER-SCOPE. You can check all the rear-end lights of any car from the driver's seat!

For the third straight year, faulty taillights are the nation's No. 1 automobile trouble spot. One out of 5 rejected cars need one or more rear lamps. (Headlamps are third.) So, get in on this big and ready-made market.

A G-E TELLERSCOPE IS FREE when you order a case of G-E all-Wather Headlamps. And General Electric is running big, full-page ads in POST, LOOK and POPULAR MECHANICS to pre-sell the motoring public on installing and aiming G-E all-Whather Headlamps . . . and replacing burned out rear lights.

PROFIT AT BOTH ENDS OF A CAR. Sell G.E.

all-Wather Headlamps by the pair . . . and an aiming job. And order a supply of small bulbs for taillights, stoplights, license plate bulbs, etc., in SPACE-SAVER PACKS. They stay neat, no covers or flaps, easy removal, faster inventory. General Electric Company, Miniature Lamp Department MA-48, Nela Park, Cleveland 12, Ohio.



Progress Is Our Most Important Product

GENERAL ( ELECTRIC

# NEW ARMSTRONG 100 LEVEL "MIRACLE" TIRE

# BORN RICH in features that sell!

Patented features no other 100 level tire can match
— previously available only in higher-priced
Armstrong Tires! Features that mean safety...
features customers can see! Yours to sell at highly
competitive prices, without "puncturing" your
proper profit. Greatest business-builder in years.
You'll agree: "It's a Miracle!"

#### PATENTED SAFETY DISCS

Keep tread always open — so it grips the road to stop deadly skids as no other tire can.

#### PATENTED INTERLOCKING SIPES

Increase traction, reduce scuffing that causes tread wear . . . greatly increase mileage.

#### SILENT TREAD

Tread pattern varies all over tire to eliminate resonance. Minimum hum and squeal.

#### UNICUSHION CONTOUR

Flatter tread when tire is inflated and rolling gives more contact, more wear.

And - Biggest Selling Feature of All:

# STARTLING LOW PRICE

Sell this Miracle Tire with its extra-value features at a price to make ordinary competition look sick! Greatest competitive story in tires today ... and plenty of room for profit.



Newest member of the famous "Grip the Road" Armstrong MIRACLE Family ADVERTISING DEPARTMENT ARMSTRONG RUBBER COMPANY WEST HAVEN, CONN.

Please rush me full information on

( ) New 100 Level MIRACLE Tire

) The Armstrong Tire Line

NAME OF FIRM:

ADDRESS:..

CITY:\_

ZONE\_\_\_\_ST

YOUR NAM

Get the facts — Clip and mail this coupon right now!

# Now you can check rear lights from the driver's seat





# with this New 🥵 TELLERSCOPE

- · saves steps · saves time
- increases lamp sales

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- ( ) New 100 Level MIRACLE Tire
- ( ) The Armstrong Tire Line

NAME OF FIRM:...

ADDRESS:\_

CITY

ONE\_\_\_STATE

YOUR NAME

Get the facts — Clip and mail this coupon right now!



## Chevrolet salesmen have what it takes!

Here you see two typical Chevrolet salesmen at work. One is showing a prospect a new Chevrolet truck. The other is pointing out Chevy passenger car advantages to a buyer who's almost ready to reach for his checkbook. Both these salesmen have what it takes—initiative and selling ability. In addition, they've got the best sell-

ing car and truck on the market to offer their prospects. Besides, they have more prospects to start with. There are nearly 3 million more Chevrolet cars and trucks on the road than any other make. It just stands to reason that the present—and the future—are brightest for the dealer and the salesmen who are on the top-selling team. . . .



The busiest doors in the business lead to Chevrolet showrooms!



Chevrolet Division of General Motors, Detroit 2, Michigan

# Here's The Service Sensation Of The Year

# wix BATTERY-GO CART

## A Life Saver When the Battery's Down!

THIS IS NOT A PREMIUM . . . it's a brand new piece of service equipment that comes in the nick of time to save you time, money, labor, acid burns and clothing damage. WIX Battery-Go Cart comes to the rescue of 6v. or 12v. batteries . . . services cars and trucks in the station, on the road or in the cramped quarters of a garage. No serviceman can afford to be without one!

It's Complete . . . sturdy 10 gauge welded steel body, cadmium plated hold-down

clamps . . . 7.50 x 1.25 tires on rims with Oilite bearings . . . tubular steel handle . . . booster cables with insulated alligator clips color-coded to indicate connections. Fits all popular 6v. or 12v. batteries.

This Battery-Go Cart is an exclusive WIX development that you'd expect to carry a \$20 price tag. For what it saves in time, labor, ruined clothes and customer good-will it's worth every penny of that price. WIX offers it to you two ways-outright for \$15.75 or for the amazing low price of

with your purchase of 24 or more WIX Oil Filter or Air Filter Cartridges of your choice. This offer expires May 31, 1958. SAVE \$10.00 by ordering yours NOW!

Bring your stock of WIX Oil Filter and Air Filter Cartridges up to par and get the added sales and profits WIX Prescription Filtration assures. Ask your jobber for full particulars about WIX products and WIX merchandising aids, including WIX-O-MATIC, the sales system that GUARANTEES Filter Sales and Profits.

AUTOMOTIVE . INDUSTRIAL . RAILROAD WIX CORPORATION . GASTONIA . N. C.

In Canada: Wix Corporation Ltd., Toronto



POLYMITE Depth Type for Partial-Flow Replacement



Systems

POROSITE Pleated Type for Full-Flow **Systems** 



for Full-Flow Oil Filtration



Standard Leading Cars

7.50 x 1.25 Tires-welded steel wheels with Oilite bearings. Height 38", Length 22", Width 13". Heavy duty 8' #4 gauge jumper cables. Insulated Alligator clips.

All welded steel body with detachable battery hold-down clamps.

Sturdy tubular steel handle with jumper cable rack and insulated

Shipping weight 17 lbs. Unconditionally Guaranteed.

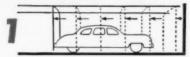
grip.



# AUTOMATIC CYCLING OF COMPLETE CAR



FINGER TIP OPERATION SPEEDS WASHING



TEMPERING CYCLE. On flick of lever, "Spray Arch" automatically starts, moves length of car spraying it with clear water while wheels are hand washed.

#### SINCE 1910 - THE MOST COMPLETE LINE IN THE FIELD!











SAFETY LANES

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# INCREASES THE NUMBER WASH JOBS PER HOUR!

# WEAVER

AUTOMATIC OVERHEAD

# CAR WASHER

is fast ... thorough ... profitable!

You'll like this great time and labor saving piece of equipment ... Automatically sprays clear water over top and both sides of car . . . then, automatically sprays detergent and water as operator follows with sponging. Note the 1-2-3-4 illustrations shown below and you'll quickly recognize the many advantages you gain with a Weaver Automatic Car Washer.

The automatic operation has tremendous customer appeal, and helps sell other jobs. Increased customer contacts gained by car washing leads to increased sales of gas, oil, tires, batteries, accessories and service jobs.

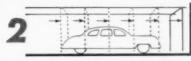
No costly installation is needed. No floor tracks, no large inlet pipes, no special drains, no storage tanks, and no splash walls or curtains are needed. You merely anchor supporting chains overhead, connect water, and plug into 110 volt electrical outlet. Unit can be stopped at any stage of cycle, and operation later resumed from same point - an ideal feature for operators who must perform other duties.

This super-efficient reasonably-priced unit will greatly enlarge your washing capacity. And, by using WEAVER-GLOSS Car Washing Detergent (sprayed on car automatically during "detergent cycle") operator can quickly turn out completed jobs free from streaks.

The time-saving, profit producing results others are getting with the Weaver Automatic Overhead Car Washer - YOU, too, can get.

See your Weaver jobber or write us for Bulletin MA-710

WEAVER MANUFACTURING COMPANY, SPRINGFIELD, ILL., U.S.A.



DETERGENT CYCLE. At end of "Tempering Cycle" the "Spray Arch" automatically re verses direction, sprays car with "Weaver-Gloss" Detergent and water as operator starts sponging at rear.



SPONGING CYCLE. To permit completion of manual sponging, the machine stops at end of "Detergent Cycle" for an adjustable interval which is pre-set to suit manpower available.



RINSING CYCLE. After "Sponging Cycle" unit automatically starts, delivers 4 clear water rinses, and automatically shuts off.

# VER SERVICE EQUIPMENT



WHEEL BALANCING EQUIPMENT



AIR COMPRESSORS



WHEEL DOLLIES

BUMPER LIFT JACK

ALIGNMENT EQUIPMENT



# ECHLIN is the Largest Independent Ignition Parts Manufacturer in the World

... Because Echlin Parts are the best!

# For sales punch in fuel pumps

# COUNT CARTER FUEL SYSTEMS



# MODERN FUEL SYSTEMS

supplier now.

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PELICAN IN USE WITH SIOUX AIR IMPACT

Take a <u>good</u> look... You've never seen this one before!



It's the new...

NUT ACCUMULATOR

With the SIOUX Pelican Nut Accumulator attached to an impact wrench, ten nuts can be spun off and back on again without being touched by human hand. It will hold ten  $\frac{3}{4}$ " or 13/16" hex nuts either 7/16" or  $\frac{1}{2}$ " thread.

The center stem with its load of nuts is easily removed and another empty stem installed in its place. With one extra stem, 20 nuts can be removed and replaced; with two extra stems, 30 nuts, etc.

The Pelican may be used with any ½" or 5%" square drive, air or electric impact wrench. The simple, dependable mechanism has few moving parts. It cannot be damaged by overloading. It drives without loss. Nuts can't get dirty.

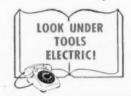
The SIOUX Pelican costs little in relation to the time it saves. It quickly pays for itself. It's brand new and exclusively from SIOUX to you.

LOADED CENTER STEM



PELICAN IN USE WITH SIOUX ELECTRIC
IMPACT WRENCH

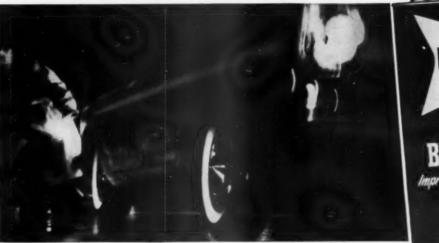




## ALBERTSON & COMPANY, Inc.

SIOUX CITY, IOWA, U.S. A.

Five years of grueling road tests, over mountain roads, in desert heat and in city traffic . . . five years of continuous research in Chrysler laboratories . . . these stand behind this news announcement of major importance.





# EXTRA SAFETY

# announcing: nearly 100° of extra protection with new MoPar "Hi-Temp" Brake Fluid

Today's new MoPar "Hi-Temp" Heavy-Duty Brake Fluid stands up to heat nearly 100° higher than present specifications established by the Society of Automotive Engineers.

Your customers will appreciate knowing about this major "difference in degree," since the friction heat of braking can raise brake fluid to the boiling point—and bubbles in the lines can cause brake fading and failure.

Order this entirely new kind of brake fluid from your MoPar wholesaler salesman or your Plymouth, Dodge, De Soto, Chrysler or Imperial dealer now.

#### BRAKE BUSINESS IS PROFITABLE BUSINESS!

Don't forget that a lot of your customers are ready for MoPar' Cyclebond Brake Linings, MoPar Brake Hose, Cyclebond Exchange Brake Shoe and Lining Sets. All are products your customers trust. All are official, authentic Chrysler Corporation products.



MoPar Division, Chrysler Motors Corporation
Detroit 31, Michigan

interest and the framework

NOW!
get into action
as local
headquarters
for...

\$100000

\*AIM TO LIVE CONTEST

MAKE IT YOUR BUSINESS TO HELP CUSTOMERS



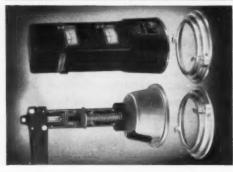


ANY LICENSED DRIVER IS ELIGIBLE! General Motors is conducting a \$100,000 AIM TO LIVE Contest during March and April to create greater interest in night-driving safety and to stimulate action on the part of motorists to have their headlights checked and properly aimed. This is a wonderful opportunity for you. Most of your regular customers will want to enter. And there'll be plenty of new customers, too! For any licensed driver is eligible to win one of 116 valuable prizes including 16 new 1958 General Motors cars and 100 beautiful Frigidaire appliances. And they can only enter at an AIM TO LIVE Headquarters.



#### **HEAVY NATIONAL PROMOTION BUILDS TRAFFIC FOR YOU!**

This contest is being promoted in a nation-wide magazine, television and publicity program, inviting motorists to stop at your AIM TO LIVE Headquarters for an official entry blank. And when motorists drive into your AIM TO LIVE Headquarters, you have an excellent opportunity to check their headlights for replacement and proper aiming.



#### GET FREE PROMOTION MATERIAL WORKING FOR YOU!

This colorful display material gives you a strong tie-in with national advertising and clearly identifies you as an AIM TO LIVE Headquarters. In addition, it's a constant reminder to your customers to have their headlights properly aimed at least twice a year.

#### HAVE YOUR AIMERS AND AIMING STATIONS READY!

Get set to handle all the business coming your way through the AIM TO LIVE program. Have your aimers and stations ready with qualified men to do the aiming. If you have not been contacted directly about AIM TO LIVE, call your authorized General Motors dealer or AC Guide Lamp Supplier for full details right now! Contest closes April 30th.

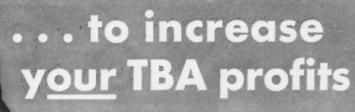
Limited to continental U.S.A.
Contest subject to federal, state and local regulations.



CHECK HEADLIGHTS REGULARLY

General Motors

CHEVROLET . PONTIAC . OLDSMOBILE . BUICK . CADILLAC . GMC TRUCK . GUIDE . AC



satisfaction

# CHECK THE BELTS

it pays you in two ways to check the belts every time a hood is raised . . .

- 1. V-belt profits are good and with the many added applications in modern cars, sales have increased considerably.
- 2. Another reason for making belt checking a standard practice is that it helps insure the continued patronage of your good customers. Don't let them take chances with belts that should be replaced.

# Replacements with Gates V-Belts are fast and easy

There is a Gates V-Belt for every make and model of car. *Precisely engineered*, it fits correctly. And no time is needed in making the sale—all car owners recognize and trust the name of the *World's Largest Maker of V-Belts*.

Phone your nearby Gates jobber now for the belts you need and a handy display rack.



660

TPA 202

The Gates Rubber Company, Denver, Colorado

World's Largest Maker of V-Belts



The underside of the belt—not the top—tells the true condition of the belts. So always turn belts over. Belts that have any of the following signs of wear should be replaced.



GLAZED: Slick, glazed sidewalls may cause belt to slip badly. Result: low battery and overheating.



CRACKED: Cracks on underside are dangerous. Belt may map



PEELING: Sections of undercore (underside) often peel and break off. Belt runs rough —may fail.



GREASY: Note the grease-softened undercore and slick sidewalls. Aside from danger of slippage, such belts go to pieces rapidly.



SPLIT: Signs of "fraying" may indicate split in sidewall. Split belts don't ride pulleys properly — may cause sudden trouble.



Gates Vulco V-Belts

SELLING *SLAN* 

MONEY-MAKING

SPRING INTO ACTION ... Jackpot



AC'S BIG "SPRING INTO ACTION" CAMPAIGN WILL RECEIVE POWERFUL NATIONAL ADVERTISING SUPPORT

#### **National Magazines**

Striking full color, full page AC Spark Plug and Oil Filter ads will carry the "Spring Into Action" theme to the mil-lions of readers of "Life," "Look," "Saturday Evening Post" and "Reader's Digest."

#### Billboards

"Spring Into Action with AC Spark Plugs and Oil Filters" . . . on over 5000 billboards, in every marketing area of 25,000 population. Millions of motor-25,000 population. Millions of motorists will see these AC Action reminder messages daily.

#### Television

Bright, attention-attracting "Spring Into Action" AC Product Commercials on ZORRO, AC's network TV show on ABC-TV. Viewers will be urged to "Spring Into Action" and visit their nearby AC Dealers.

#### Point-of-Sale

Your point-of-sale display includes an action-packed window trim that quickly identifies your outlet as AC Action Headquarters, and reminds your customers to get their cars serviced for the upcoming big driving months.

Call your AC Supplier now

AC SPARK PLUG A THE ELECTRONICS DIVISION



Chilton's MOTOR AGE, APRIL, 1958

# OF THE MONTH!

.. ENTER AC'S BIG

# for **Your Selling Slants!**

# 1001 AWARDS TO AC DEALERS in the national "selling slants" competition

Yes, during April and May, the hunt will be on . . . for selling ideas used by you in connection with any AC Product.

Any service station, repair shop operator or car dealer is eligible. Nothing to buy to enter . . . just submit your special spring service promotional plan which ties in the sale of any

AC Product (including Guide Lamp) on an official entry form. Your idea could be worth a \$10,000.00 U. S. savings bond!

Call your AC supplier today. He has the details, including your official 1001 Dealer Kit containing the official entry and your big "Spring Into Action" point-of-sale display.



get your Official Contest Kit today!

OF GENERAL MOTORS

Watch Walt Disney Studios' ZORRO every week on ABC-TV

# SELLING SLANTS MONEY-MAKING FACTS

During April and May...

# Spring in

# With these THREE Big

**SPECIAL OFFER...** The AC Spark Plug Service Tool Kit Worth \$26.56 is yours for only \$13.21\* in this promotion.

The new AC Spark Plug Tool Kit is your answer to those tough, time-consuming spark plug removal and installation problems.

Here's more good news... you can obtain this valuable kit of service tools for less than one half its retail value by purchasing the AC FM-36 Promotion Package along with an order for any 48 AC Spark Plugs.

## FM-36 PACKAGE INCLUDES:

- High Quality AC Spark Plug Tool Kit (Shown at left)
- \* One 8-Pack of AC Spark Plugs (Type 85TS) worth \$8.24 which, when sold, reduces your initial investment of \$21.45 for the FM-36 Package to the low net of \$13.21.



- Special AC Adapter Wrench
- 3" Extension
- 6" Extension
- 11/16" Deep Socket with Rubber Retainer
- 13%" Deep Socket with Rubber Retainer
- 1/4" Deep Socket with Rubber Retainer
- 3/8" to 1/2" Adapter

PLACE YOUR ORDER NOW . . . OFFER IS LIMITED!

AC SPARK PLUG 🖶 THE ELECTRONICS

WATCH
WALT DISNEY
STUDIOS' ZORRO
EVERY WEEK
ON ABC-TV

# OF THE MONTH! DR DEALERS

# Action

# **AC Product Promotions!**

SPECIAL OFFER... New AC Fuel Pump Promotion featuring (Man's) Sunbeam SHAVEMASTER



First time ever offered in a promotion . . . the nationally advertised Sunbeam Blade-Electric SHAVEMASTER that's sold at retail for \$29.95. It's yours with the AC Fuel Pump FM-39 Promotion.

Here's what you receive when you order any 8 new AC Fuel Pumps and the FM-39 Promotional Package for regular price of the 8 pumps, plus \$19.95.

- Sunbeam SHAVEMASTER Nationally Advertised at \$29.95
- Popular New AC Fuel Pump (Type 529) worth \$15.45
- AC Flexible Line (Type GL-125) worth \$1.90

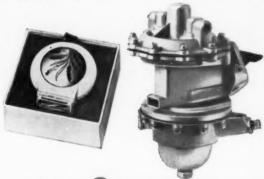
#### **Promotion Details:**

Your Initial Cost\$1	9.95
You recover	
Sale of Pump	\$15.45
Sale of Line	\$ 1.90
Core Value of Replaced Pu	imp\$ .65
Total Recovery	\$18.00

Your net cost ...a low

\$1.95

SPECIAL OFFER. . . Rebuilt AC Fuel Pump Promotion featuring (Lady's) Sunbeam SHAVEMASTER



CALL YOUR AC SUPPLIER TODAY DIVISION OF GENERAL MOTORS A beautiful companion gift for your wife . . . the striking Lady Sunbeam SHAVEMASTER nationally advertised

Just order any 8 AC Rebuilt Fuel Pumps from your AC Supplier. Ask him to include the FM-40 Promotional Package for an additional cost of \$11.95 and here's what you'll receive:

- Lady Sunbeam SHAVEMASTER Nationally Advertised
- Rebuilt Popular AC Fuel Pump (Type 2529) worth \$9.10
- AC Flexible Line (Type GL-125) worth \$1.90

#### **Promotion Details:**

Your Initial Cost.....\$11.95 Our recover
Sale of Pump......\$ 9.10
Sale of Line......\$ 1.90 Total Recovery..... \$11.00

Your net cost ...a low

# AG SELLING SLANTS

MONEY-MAKING FACTS

More news from (AC) . . . another (AC) first!

"Spare-Pac" Promotion

for selling more and more



Marine Spark Plugs

Plugs can be separated without disturbing waterproof plastic covering.

WAS CARRY B SPARE

NEW Handy Container for "Spare-Pac" AC Merchandiser

Especially designed so that "Spare-Pac" AC Merchandiser can be folded into it easily and compactly for shipping to you.

GET YOUR SHARE OF THIS FASTEST GROWING SPARK PLUG MARKET... DURING THE SEASONAL RUSH

# OF THE MONTH!

FOR DEALERS



## NEW Plastic Bubble "Spare-Pac" AC Merchandiser

- · Each plug sealed separately in waterproofed, transparent plastic enclosure.
- · Eight plastic-enclosed plugs mounted on a card hanger that carries a selling message.
- · Cards are perforated for convenient tearing-off of individual plugs . . . you can sell one to eight.
- You can hang the "Spare-Pac" Merchandiser in a traffic area . . . where every customer can see it.
- · It encourages impulse buying . . . and the carrying of extra spark plugs . . . by all types of boating enthusiasts.
- · Customers will quickly realize that plastic enclosures are ideal for tackle box storage.

Three Ways to Boost Your Sales Still Higher

## NEW Eye-Catching AC Marine Spark Plug Point-of-Sale Display



Reminds your customers to buy AC Marine Spark Plugs from you . . . whenever they're in your place of business. Place it near the AC "Spare-Pac" Merchandiser to land the greatest number of impulse buyers. The display is available free to all AC Marine Spark Plug dealers.

## NEW Colorful AC Marine Spark Plug Decal



Quickly identifles your place of business as headquarters for AC Marine Spark Plugs. It'll help you get your share of this fastest growing spark plug market. Available free to all AC Marine Spark Plug dealers.

# NEW Handy Catalog of AC Marine Spark Plugs



Now you have all sizes and types of AC Marine Spark Plugs listed in one handy, easy-to-use catalog. You'll need this information just to handle your marine spark plug business.

 These three AC Sales Promotion pieces are available free to all AC Marine dealers. Ask your AC supplier for details.

AC SPARK PLUG A THE ELECTRONICS DIVISION OF GENERAL MOTORS

Watch Walt Disney Studies' ZORRO every week-ABC-TV







# With this plan dealers have doubled their brake service business

The plan is Grey-Rock's P-L-S plan—a sure-fire way to more profitable brake work. With P-L-S you Pull a wheel -Look at the brakes-Show the customer what's needed.

The products are Balanced Braksets and Trucksetswith the difference you can see, show, sell. Grey-Rock combines many lining types-including woven and molded-into sets specially balanced for each make and model. You'll find this advantage only in Grey-Rock.

And the Grey-Rock P-L-S Plan includes signs, posters and many other sales helps to promote your business-to tie you in with Grey-Rock's national advertising. Grey-Rock has the plan-the products-a complete program that has doubled brake service business for many dealers coast-to-coast! Ask your jobber about it,

## First 3 to finish in "Southern 500" used Grey-Rock brake lining

The NASCAR\* Grand National Circuit is called the "toughest brake laboratory in the world." Top NASCAR drivers like Speedy Thompson (left), Cotton Owens (center) and Marvin Panch, who took the first three places in the '57 "Southern 500" race, are for Grey-Rock 100%

\*National Association for Stock Car Auto Racing









Advertised regularly in POST

Ask your jobber about a Grey-Rock Brake Service Clinic. It's the best way to keep up to date on how to handle brake problems.

Rock makes

BALANCED BRAKSET LININGS

BALANCED BRAKSETS . TRUCKSETS . BRAKE BLOCKS . VEE-LOK® CLUTCH FACINGS GREY-ROCK DIVISION of Raybestos-Manhattan, Inc., Manheim, Pa.



RAYBESTOS-MANHATTAN, INC., Brake Linings . Brake Blocks . Clutch Facings . Industrial Rubber . Mechanical Packings . Asbestos Textiles Engineered Plastics • Sintered Metal Products • Rubber Covered Equipment • Laundry Pads and Covers • Abrasive and Diamond Wheels Industrial Adhesives . Bowling Balls

### jobber executive

SECOND ANNUAL CONVEN-TION...On May 2nd, 3rd and 4th, 1958, the New Jersey Automotive Jobbers Assn. will hold its second annual convention in Atlantic City. The program includes talks by industry leaders, meetings of various trade and activity committees and election of offices for the ensuing year.

DETROIT PLANT PUR-CHASED...Purchase of a building to house a second plant in Detroit and appointment of sales personnel to obtain additional defense-contract business were announced by C. M. Hall Lamp Co. Building will provide 85,000 sq ft of space suitable for manufacturing, warehousing and offices. Edward J. Lauenstein has been appointed the company's new defense-contracts director.

FIRST TIME FOR UMS... Appointment of Richfield Oil Co. of Calif. as a United Motors Service distributor marks first time UMS will sell parts through outlets other than independent jobbers. Under agreement, more than 2000 Richfield service stations in six western states are expected eventually to qualify as UMS parts outlets. Most of these have, since March 7, been carrying the full Delco battery line. Richfield has indicated it will take on other GM items on a gradual

basis, including complete line of ignition, carburetion and brake parts. UMS says, however, that it will probably take at least a year before a network of qualified Richfield service stations is set up to handle all of GM parts. UMS will set up an extension program for training Richfield mechanics in tuneup, carburetion and brake work. Conducted at Richfield's 180 wholesale outlets through which GM parts will be distributed. Training program will be guided by UMS.

NEW TAX TABLE... Finding the amount of your U.S. social security tax is made simpler. For men who work for themselves, there's a new government tax table. Tax applies to the first \$4200 of yearly income. If income is exactly \$4200, tax is \$142. For smaller income, refer to the tax table supplied by Internal Revenue Service.

OBSOLETE ENVELOPES...
Now's the time to check your business envelopes. You may want to get rid of some odd sizes before long. Especially any smaller than 2¾ by 4 inches. Post Office Dept. decides it can't accept envelopes so small for first class mail after July 1, 1959 New automatic machines for mail sorting won't handle envelopes of unusual sizes or shapes.

NEW GENERAL MANAGER
... The Board of Directors of the
MEMA has announced the appointment of Frederic J. Lanning as the Motor and Equipment
Manufacturers Assn's new general manager.

AUTOMOTIVE EDUCATION... California ranks high among states in efforts to help ease an acute shortage of auto mechanics, which, according to Edward Gammie, president of the National Standard Parts Assn "is crippling our economy and could be disastrous in the event of a national emergency." In recognition of progress made by the Bureau of Trade and Industrial Education Division of the California State Dept. of Education in fostering automotive instruction in schools, Mr. Gammie presented a plaque to the division. NSPA represents manufacturers and wholesalers in the automotive service industry and is sponsoring a program to increase the number of high school students taking automotive instructions.

PAS ATTENDANCE... The 10th Anniversary Pacific Automotive Show held in Los Angeles on February 20 thru February 23, 1958 had an attendance of 47,101 persons during the four days of the show.

### **Operation**

### JOBBER

### Market Is Growing for Shop Equipment

INCE shop equipment accounts for almost 41/2 per cent of the average automotive jobbers' total business, any new look at the automotive wholesalers' sales prospects for 1958 must include shop equipment. This type of merchandise so necessary for faster car owner service and more profitable manhour operation, should not be confused with tools, both hand and power or electrical. These items will be considered in their true perspective at another time. But shop equipment, as treated here, does embrace most items. Such as lube equipment, lifts. air compressors, battery chargers, jacks, tune-up equipment, hoists, wheel balancers, and other big ticket items.

### Market Growing

During the last few years some jobbers have lessened their efforts in selling heavy equipment because of the terrific price competition, but when tools and equipment of all kinds are added together, the sales potential is still very attractive, and for a great many wholesalers, represents some 9 to 11 per cent of total annual volume.

Inescapable facts are that, vehicle registrations are rising to higher levels each year; multiple car ownership is accelerating: more people are driving more cars than ever before: new and improved roads and highways are inviting greater and greater travel; and probably most important of all, car owners are expecting and demanding faster and more efficient service for their cars. Service must be speeded up continuously if the service establishment expects to compete for business and keep the doors open.

If you have problems on selling equipment, especially at a respectable profit, the following will be a good check on your firm's performance and what you discover may enable you to turn some red figures into black ones.

### EQUIPMENT SELLING

- Do you have a separate selling program for service stations?
- 2. For Independent Garages?
- 3. For Vehicle Dealers?
- 4. For Fleets?
- 5. Do your salesmen keep upto-date records of the equipment sold to customers?

- 6. Do the records include future shop equipment needed for each account?
- 7. Are these service policies on each line of equipment *clear* to customers?
- 8. Are customers who purchase new equipment fully trained in its use?
- Are the customer's employees properly trained in its use?
- 10. Do you have a clear and attractive equipment financing plan?
- 11. Do your customers fully understand the guarantees under which equipment is sold?
- 12. Do your salesmen prove instead of "sell" the time and labor-saving features of new equipment?
- 13. Are shop equipment clinics or schools held regularly?
- 14. Are shop equipment manufacturers encouraged to set up training schools:
  - a. to sell new equipment?
  - b. to service new equipment?
  - c. analyze prospect's needs for equipment?
- 15. Do you regularly and prominently display important equipment lines?

### Motor Age's Who's Who



John J. Bohmrich has been appointed Electrical Products Group Executive of The Electric Auto-Lite Company, Bohm-

rich will have his headquarters in Toledo.

Angus J. O'Brien and Joseph R. Hager, Jr. have been elected members of the board of directors of the Gar Wood Industries, Inc., Wayne, Mich.

F. E. Schuchman, Sr., president of Homestead Valve Manufacturing Co., has been appointed a director of the National Valve Manufacturers Assn.



Harvey Reese
has been appointed general
sales manager
for the Cordomatic Division,
Vacuum Cleaner
Corporation of

America. He will also continue as advertising and sales promotion manager.

Walter B. Smith has been named district sales manager of Thor Power Tool Company's Milwaukee branch.

Edward B. Reynolds has joined Olin Mathieson Chemical Corp. as New York regional sales manager for Olin Aluminum.



Walter R. Bertram, for the past six years manager of the Cleveland sales office of Associated Spring Corp., has been

promoted to sales manager of the Corporation's Raymond Manufacturing Div., Corry, Pa. Vince Greer and Al Rowe have been given a new combined territory assignment in Ohio, Ind. and Ky. for Lempco Products, Inc.

J. D. Hershey has been named director of Public Relations for the Dayton Rubber Co.

Howard A. Tenney joined Jefferson Chemical Co., Inc., as manager, Antifreeze Sales.





Richard H. Long, left, has been appointed assistant manager of Bendix Automotive Engineering at the Bendix Products division of Bendix Aviation Corp. W. R. Williams will succeed Long as assistant chief engineer of the Vacuum Power Equipment, Engineering Department.





Arch Warden, left, has been named a vice president of Xcelite Incorporated. A. J. (Arlie) Holmes has been named assistant sales manager.

Harold A. Mooz, Jr. has been promoted to central regional sales manager of the Automotive Test Equipment Division of Allen B. Du Mont Laboratories, Inc., David M. Connell has joined the company as a sales engineer.

William F. Fowler, Jr., general manager of Thor Power Tool Company's Aurora, Ill., administrative offices, has been appointed



to the additional position of manager of Thor branch operations.

Harry P. Troendly has been elected a group vice president of Borg-Warner Corporation.

Ivan L. Fesser of Hillsboro, Ill., has been appointed special representative for the Champion Spark Plug Company.

John Seaman has been appointed sales manager of Automotive Metal Products Co., Cleveland, Ohio.

Reginald E. Brackett has been appointed assistant sales manager of The L. S. Starrett Company, Athol, Mass. He will



also continue in charge of the company's dial gage division .

William H. Ferguson has been appointed sales supervisor, Northeast Region of the Exide Automotive Div., Cleveland, Ohio.

Edward M. Platts has been appointed to the Automotive General Sales staff of the Bendix Products Division of the Bendix Aviation Corp. at South Bend, Ind.

Byron D. Booth has been named general sales manager of the John W. Hobbs Corporation, a division of Stewart-Warner Cor-



poration. Booth replaces F. Lee Farmer, who remains as vice president in charge of industrial sales.

### signs of the times...



On hand for the opening of the second Auto Lite Training School for its replacement sales force, completed recently at Richmond, Va., were (from left): W. F. Connolly, eastern regional manager; R. J. Thompson, regional service manager; W. B. Selb, educational director: and C. H. Beckham, technical service supervisor. School's week-long course graduated 44 Eastern members.



Standard Motor Products' Eastern Sales Manager, Ralph E. Free, resumes his Long Island, N. Y., duties after a two-year convalescence perriod due to severe injuries suffered in a train accident.

### DeVilbiss School Forms Available

Revised application forms for the DeVilbiss School of Spray Painting are now available from the company. Schools in industrial product finishing, maintenance painting, general refinishing, service training, automotive jobber, and portable equipment jobber-personnel are offered.

The week-long classes, with daily sessions from 8 a.m. to 5 p.m., are held at the factory in Toledo. Eligible are owners and sellers of DeVilbiss equipment, or their representatives and operators. There is no fee. Equipment and materials are furnished.

### New Ad Series To Serve Industry

Described as a new approach to trade paper advertising, Arrow Armatures Co. of Boston, Mass. and Spartanburg, S.C. is departing from the tradition of "hard sell." Instead, it is providing useful information to independent repair shops, service stations and dealer repair departments.

Under the heading "Profit Problems," a series of advertisements will discuss methods to increase the profits of large and small service shops.

Arrow's president, Albert S. Holzwasser, (photo) explained the program is designed to avail the trade with knowledge gained from 25 years. "Our success is measured by the cumulative suc-



cess of service shops everywhere," he said. "Therefore, we are devoting a substantial portion of every advertising and promotion dollar to benefiting the industry as a whole,"



The appointments of Les A. Thayer (left), and E. K. Butler (right) have provided Belden Mfg. Company, Chicago, with a new sales management team. Thayer will be general sales manager, while Butler will direct marketing services. In the center is Vice President H. W. Clough.

### First '58 Class Graduated By Bear

The first 1958 graduating class of Bear Mfg. Company's Rock Island, Illinois, school included two students from South Africa, three from Canada, and sixteen from the United States. Seven students took advantage of the school's warranty privileges, receiving schooling after paying one week's tuition. The remaining weeks were provided at no charge. Bear Manufacturing Company offers these warranty privileges to anyone purchasing an alinement rack outfit or frame straightening machine.

Courses at the Bear School begin every other week in wheel alinement, frame straightening, wheel balancing, wheel straightening, and related subjects. They vary from one to four weeks' duration.

### Announces Recent Headquarters Move

To improve sales and service access to Detroit-area automotive and industrial customers, American Brakeblok Division of American Brake Shoe Company has moved to a new Troy, Mich., headquarters. The sales offices of four other brake shoe divisions accompanied the move.



Steve Stefanic, Ammco Tools, Inc, happily applies final touch to the first of another 10,000 production run of Model 2000 "Safe-Arc" brake shoe grinders. The elated gentlemen watching (from left): service director Dick Stevenson; assembly foreman Charles Fagan; sales vice-president Marty Bazner, Sr; President Fred Wacker, Jr; and production vice-president Frank Van Parys.

### Auto Jobbers' Key Role Stressed

The importance of the automotive jobber in Aro's distribution system was emphasized at the 1958 national sales conference of the Aro Equipment Corporation. Place was Bryan, Ohio. The meeting was conducted by C. A. Stutzman, sales manager of the Arolube Division, and was attended by all division managers from the U.S. and Canada.

### Distributor Speaks

Vincent Fochtman, vice president of Fochtman Motor Co., an automotive jobber in Traverse City, Mich., discussed the relationship between an equipment manufacturer and a distributor. He explained what distributors expect from the manufacturer as to sales assistance, product quality, technical information and other elements of merchandising.

### Dana Parts Div. Alters Name

To further emphasize its full divisional status and to better describe its function, the name of Dana Corporation's Parts Division has been changed to Standard Equipment Division, J. E. Martin, President, has announced. Neil A. Moore will continue as general manager of the division, he said.

The change to a unit within the corporation was announced recently when the division moved to its own new warehouse and office building at 253 Waggoner Boulevard, Toledo, Ohio. The new quarters are adjacent to Dana's general offices and manufacturing plant.

### Fram VP Dies

Malcolm McCormick (photo), Vice President in Charge of Market Research for Fram Corporation, died recently at his home in Barrington, Rhode Island. He was 69 years of age.

Mr. McCormick joined the staff of Fram Corporation in 1941 and during World War II was Vice President in Charge



of Defense Production. In 1945 he became Vice President in Charge of Sales and a member of the Board of Directors. He was named to direct market research for Fram in 1950.



An over-all expansion program by Walker Mfg. Company will produce this three-and-a-half acre plant at Aberdeen, Miss. Plant will launch manufacturing operations sometime in August to keep pace with rising Southern automobile market.



The above 29 men of World Bestos Corp's replacement sales division seem cheerful despite the weather. Substantial gains in 1957 brake lining sales were revealed to them during World Bestos' annual sales meeting, held recently at New Castle, Indiana.

### Porter Acquires Thermoid Stock

T. M. Evans, Chairman of H. K. Porter Company, Inc, announced the acquisition of approximately 325,000 shares, or 40 per cent, of Thermoid Company common stock.

"When the company's annual audit is completed and when information is available on the possible liability of the company for prior years' income taxes, we plan to make a proposal to other Thermoid stockholders," Evans said. The company stated the information should be available within several months.

### CAWA Conducts 2-Year Course

The California Automotive Wholesalers' Assn., to supplement on-the-job training of countermen, is offering a two-year course at Mt. San Antonio College, Walnut, Calif. The course is drawing students from throughout the Pomona and San Gabriel Valleys.

Classes meet one night each week and cover counter efficiency and salesmanship. The course is conducted by CAWA members.

### New Agent Firm To Serve Jobbers

A national manufacturers' agent firm, George Schofield and Associates, has been formed to serve automotive jobbers in the United States, Canada and Mexico.



GEORGE SCHOFIELD

The new firm, with offices in Cleveland, will handle automotive paints and stamped parts, including replacement head lamp assemblies. Also rotary lawn mowers, fibreglass autobody repair materials and reinforced, cold solder body filler. Besides the replacement lines, the company is also managing original equipment parts.

### **Industry Meetings**

Apr. 23-25 — Southeast Automotive Show trade conference, Bon Air Hotel, Augusta, Ga.

Apr. 27-29 — Michigan Automotive Wholesalers Association, Pantlind Hotel, Grand Rapids.

May 11-14 — Automotive Engine Rebuilders Association convention, Sheraton-Park Hotel, Washington, D. C.

May 26-27—N-A-P-A National Business Conference, Sheraton-Fontenelle Hotel, Omaha, Neb.

June 16-17—Automotive Wholesalers Association of Alabama convention, Pick-Bankhead Hotel, Birmingham.

Oct. 15-18—Automotive Wholesalers of Texas convention, Moody Civic Center, Galveston, Tex.

Dec. 12-16—Automotive Warehouse Distributors Association convention and manufacturers-distributors conference, Muchlback Hotel, Kansas City, Mo.



Located relatively close to racing's famed Indianapolis 500 speedway is this new one-story building of Gulling Auto Electric, Inc. The low-slung structure, featuring a customer pickup window for automotive parts, blankets the entire north side of the 1200 block of Stadium Drive. An open house is scheduled for May 2, 3 and 4th.

### Kent-Moore Hails Retiring VP

The retirement of A. E. Price, vice president, was announced

at a recent directors meeting of Kent-Moore Organization, Inc., Warren and Jackson, Mich. He was presented a statement of commendation for his 36 years' service by H. J. Adair, chairman.

Price started at the service tool engineering and manufacturing firm as a machine operator in 1922. He rose to a vice president of manufacturing 13 years later. In 1948 he was placed in charge of all industrial accounts to develop the service tool potential in the construction, diesel, truck and agricultural fields.

Price will conduct special surveys as an independent industrial consultant.

### **Automotive Wholesalers' Sales and Inventories**

Data from Bureau of the Census, Department of Commerce

Per Cent Change

	Sa	iles	Inven	tories
Region	Jan. 1968 from Jan. 1957	Jan. 1958 from Dec. 1957	Jan. 1958 from Jan. 1957	Jan. 1958 from Dec. 1957
New England	(a)	+11	+ 1	+ 1
Middle Atlantic	+ 7	(a)	- 1	+ 1
East North Central	- 2	+ 3	+ 7	- 4
West North Central	- 3	+ 4	+12	+ 1
South Atlantic	- 7	+ 9	+ 3	+ 5
East South Central	+ 3	+18	+ 2	+ 2
West South Central	+ 3	+18	- 1	+ 2
Mountain	(a)	+ 9	(a)	+ 3
Pacific		+ 8	+ 4	- 2
United States	+ 9	+ 6	- 1	- 2
(a)—Withheld due to extreme variation of	reported data.			

### **Indicators of Business Activity**

These figures are based on latest thirty-day reports

	Latest	Month	Year	Percentage Cha	
	Data	Before	Ago	Month Ago	Year Ago
PRODUCTION					
Motor Vehicles (Units)	466,141	572,535	664,734	-18.6	-29.9
Industrial F. R. B. 1947-'49 = 100 (Adj.)	130	133	146	- 3.7	-11.0
SALES					
New Cars	320,000	381,932	438,725	-16.2	-27.1
Replacement Tires (Units)	5.511,314	3.342.423	5,195,485	+64.9	+ 6.1
Manufacturers (\$ Millions)	-11		.,		
Durable Goods	\$12,639	\$13,092	\$14,941	- 3.5	-15.4
Non-durable Goods	\$13,627	\$13,598	\$15,015	+ 0.2	- 9.3
			136	- 3.8	- 7.4
Department Stores, 1947-'49 = 100	126	131	130	- 3.8	- 1.4
GENERAL					
Consumers' Price Index, 1947-'49 = 100	122.3	121.6	118.2		
Civilian Employment	61,988,000	62.238.000	63,190,000	- 0.4	- 1.9
Unemployment	5,173,000	4,494,000	3,121,000	+15.1	+65.7

### **Open Letter to Automotive Wholesalers:**

We have just come to appreciate a very valuable by-product of our extensive recent research. This included the \$50,000 survey by National Analysts of "Where the Automotive Service Work is Done," and the \$65,000 verification by Western Union of those gasoline service stations who are doing service work.

The valuable by-product? Proof-positive of the amazing, dependable accuracy of good research.

Research has blossomed in the last 10 to 15 years until it has become an indispensable tool of modern marketing.

Many people, however, have trouble understanding, and therefore relying on, research. It just seems too good to be true that accurate data can be obtained from limited samples. This especially is true of the leading and most important research technique—"Area Probability Sampling."

That was the method used in our recent National Analysts study. It established, among thousands of other things, that 20.1% of the gasoline service stations have one or more full-time mechanics (working five working days a week) and do a combination of brake work, electrical work and engine tune-up. They do 80% of the service work performed by gasoline service stations and have 80% of the mechanics.

When the National Analysts study was completed we knew the quantity of gasoline service stations which MOTOR AGE should add to its circulation to deliver the volume market.

The \$65,000 Western Union research was next undertaken to establish who they were, so we would know where to send MOTOR AGE to deliver our guaranteed 80% of the service volume and a probable 94%.

The Western Union verification established that  $\underline{19.76\%}$  of the gasoline service stations do service work.

20.1%—19.76%. That's unique, dramatic proof that good research is absolutely dependable and usable.

And, it makes us very comfortable to know that MOTOR AGE's coverage of the automotive service volume is accurate to the highest possible degree and scientifically provable.

No other business publication, to our knowledge, has ever spent nearly as much money nor has achieved such complete guaranteed Market Coverage.

Cordially,

RUSSELL W. CASE, JR. PUBLISHER

### MOTOR AGE

### newscoop

Early Debut For '59's Cadillac Ups Production Edsel To Drop One Model Longer Cars For '59? Army To Use More Diesels Used Car Outlook: Good

### Early Debut For '59 Models

POSSIBILITY THAT MANY '59 cars may be introduced somewhat earlier than was true for '58 models.... Anywhere from 2 weeks to 30 days earlier.

One GM division scheduling to wind up output on '58 models in July.... Six weeks earlier than last year.... Production on '59 component parts at this division scheduled to commence Aug. 2, with final assembly to start Sept. 2.... Indicates late Sept. or early Oct. announcement date.

All these plans, of course, hinge on outcome of labor negotiations and whether sales of '58's will pick up.

### Ford Undecided On Small Car

FORD DEFINITELY HAS NOT decided yet on producing a small car, according to Ford official interviewed by Motor Age.... He emphasized that Ford, as well as other makers, are aware of trend and are continuing to study possibilities for a domestic small car.... "But we do not see any definite signs of a small car 'boom' at this point."

He admitted that company is working on at least five different versions of a small car which are being readied on a "standby" basis.... So far there has been no nod to go ahead with them.

### **Cadillac Ups Production**

CADILLAC IS ONLY CAR division of Big Three whose sales and production are running at pace nearly equal that of '57.... Demand recently necessitated upward revision in production schedules.

Total of 109,000 cars being scheduled through end of May.... Slightly more units than for same period last year... Division continues to work on a two-shift basis.

### Edsel To Drop One Higher Priced Model In '59

EDSEL WILL DROP one of its higher priced models in '59.... James J. Nance, general manager of the M-E-L Division, confirmed such reports.... He said vertical type grille would continue to be trademark of Edsel car, quashing rumors that front-end styling would undergo a radical change.

### **AMA Dual Headlamp Systems Booklet**

A COMPREHENSIVE GUIDE on the dual headlamp system will be issued soon by the Automobile Manufacturers Assn. A joint effort of AMA and lamp manufacturers, the booklet describes new system in detail, gives instructions on aiming and discusses advantages of new mechanical aiming devices.

Booklet will be invaluable to garages, service stations, state safety inspection stations.... Old system also covered in booklet.

### **Cars With Air Suspension**

FORD OFFERS ADVICE to garages working on cars equipped with air suspension... One: Never use frame hoist when checking air suspension system for leaks, etc.... With a frame hoist, wheels will drop to fully extended position and cause levelling valves to reduce air pressure in springs to minimum maintained by T-check valves.

Before lifting an air suspension car on a twin post hoist, make sure there's enough clearance to prevent damage to shocks, ball joint grease fittings, rear stabilizer, gas tank, etc... If you don't have a hoist, mount car on support jacks before attempting any service operation.

### February Rambler Sales Set Record

DESPITE SOME CUTBACKS in production recently, situation continues to look rosy at American Motors.... Rambler sales in Feb. set record for that month.... Climbed 60 per cent above like month in '57.... In five-month period following introduction, sales were up 65 per cent above same period of '57.

Company reports that its dealer body continues in healthy position.... In Feb. AMC added 91 new dealers, bringing to 175 number signed up during first two months of this year.... Its goal for 1958 is 800 new dealers.

### Longer Cars For '59?

WHILE RUMBLINGS ABOUT small cars continue to grow hotter, some car companies have "bigger" plans in works for '59. Reports are that both Chevrolet and Ford will stretch out cars still further.

Chevrolet plans to add 1½ in. to its wheelbase in '59.... Going from present 117.5 in. to 119 in.... Ford reportedly will put its models on 118 in. wheelbase chassis, on which Fairlane is built at present.

### Studebaker-Packard Sales Down

DESPITE SHARP DROP IN SALES, Studebaker-Packard last year reduced its losses under 1956.... Net loss totalled \$11.1 million compared with a loss of \$43.3 million in 1956.

Sales last year totalled \$213 million against \$303 million in previous year. Year-end adjustments more than offset a "relatively small operating loss" during the fourth quarter, company said.

Sales this year have been disappointing, with production off drastically under last year.... Company turned out only 6600 cars between Jan. 1 and Mar. 15, compared with 15,900 in like '57 period.

### Rumors Of Big Changes Coming At Ford

ONE OF THE BIGGEST STAFF CHANGES in Ford Motor Co. history will take place sometime this year, or early next year, informed sources say.... Move will involve Henry Ford II, president; Ernest R. Breech, board chairman; James J. Nance, vice president and general manager of M-E-L Division; Robert S. McNamara, group vice president in charge of all car and truck divisions, and several other key executives.

### Chrysler's "Sure Grip" Catching On

"SURE-GRIP" DIFFERENTIAL, introduced by Chrysler Corp. last year, is catching on fast.... Unit being ordered on 24 per cent of all Imperials built; 15 per cent on Chrysler; 15 per cent on DeSoto.... Percentage of installations on Dodge and Plymouth is somewhat smaller.

### GM's Motorama May Be Revived

GENERAL MOTORS may revive its Motorama.... Insiders at GM report that idea is being kicked around to hold a New York show this Fall to launch '59 models.... But there has been no decision yet.

GM last staged a Motorama in '55.... Cancelled plans for a '56 show to join other makers in sponsoring industry's first postwar national automobile show.

### Army To Use More Diesel Engines

BY 1962 NEARLY ALL ARMY combat vehicles will be powered by dieseltype compression-ignition engines, replacing conventional gas engines.... So says Detroit Ordnance-Tank Automotive Command.... Under development for four years, new engines will use fuel injection system.

### **Demand For Tax Cut Grows**

DEMAND FOR TRIMMING AUTO EXCISE tax growing.... House and Senate bills plug for scrapping tax, cutting it, or shelving it for a while.

Chances look fair for getting tax reduced, maybe as part of a broad tax cut.... Even slicing present 10 per cent to 5 would save buyers close to \$600 million this year.... forecasts Sen. Potter, R., Mich.

### **Hearings On Auto Pricing Bill**

HEARINGS LIKELY IN APRIL on new auto pricing bill.... Would order factories to mark suggested retail price of each car on windshield sticker.... Freight charges, means of shipment also would be shown.

Bill's author, Sen. Monroney, D., Okla., claims true car prices are hidden from buyers. Auto builders' spokesmen may ask to testify in opposition.

### Outlook For Used Cars: Good

USED CARS EYED with greater interest.... Federal Reserve Board's sampling survey shows more consumers inclined toward them.... About 10% per cent are planning to buy used autos.... Last year, under 8% per cent were.

### Auto And Parts Sales For '57

AUTO SALES, PARTS SALES came to \$15½ billion in 1957.... A rise of \$1 billion over 1956 sales, as added up by U. S. Commerce Dept. Higher prices brought about gain.... Though small swing from medium- to low-priced cars partly offset price climb.

Peak year for auto and parts marketing was 1955, when sales totalled \$17 billion.

### **Retreading Shop Training Program**

NATIONAL TIRE DEALERS and Retreaders Assn. about half through this year's retreading shop training program.... Tire dealers who take part hear retreading discussed and visit a retread shop.

Classes were scheduled at three cities in March.... April calendar reads this way: Chicago, April 16; Seattle, April 18; Boston, April 29; and Long Beach, Calif., April 30.

### How Dangerous Is Auto Exhaust Gas?

DISPUTE OVER AUTO EXHAUST gases simmering.... Bill by Rep. Schenck, R., Ohio, would bar use of some motor vehicles.... Those putting out more unburned gas than the U. S. Public Health Service thinks safe.

But USPHS admits it doesn't yet know what exhaust gases do to health.... Automobile producers doubt bill could be carried out effectively.

### Service Stations Feb. Business Down

GASOLINE SERVICE STATIONS did less business in February than in January.... But they were ahead of February, 1957, in dollar volume.

Government sees totals this way: February, 1958-\$1.1 billion; January, 1958-\$1.2 billion; February, 1957-\$1 billion. Retailers in other lines also recorded sales slide from January to February this year.

### **Protecting Small Business Firms**

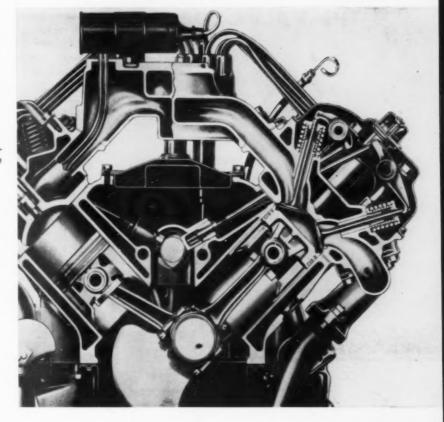
SAFEGUARDING SMALL FIRMS against labor hardships is urged on Congress.... Small Business Administrator Wendell Barnes favors measures to protect against secondary boycotts.... And against high handed picketing methods.

His agency is pondering a broadened lending program.... With changes to attract bank loans, and an eased small business definition.

### Cars More Expensive To Run Now

RUNNING A CAR IS MORE expensive now than in 1957.... Driving 10,000 miles this year will average about \$75 higher, the American Automobile Assn. figures.

Maintenance and tire costs are not up much.... Gas and oil bills are down a little, because of better gas mileage. Depreciation is big factor in cost boosts.... It's up more than \$50 for low-priced cars.



To the right is shown a crosssection of a modern V-8 engine valve system.

### VALVE TROUBLES

### their cause & cure

Here is a roundup of trouble points which should be considered when you are reworking the valve system

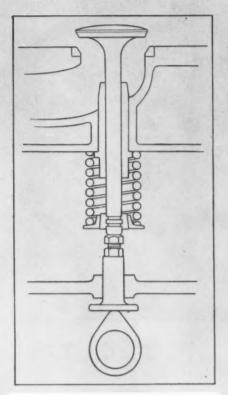
HERE IS more to a valve job than just refacing. Those who would claim to have "done a valve job" by merely refacing valves and valve seats just don't realize the loads imposed on the *entire valve system* in modern engines.

You learned to do a refacing job either in vocational school or by on-the-job supervision with a master mechanic—probably both. The manuals that came with your valve refacer and seat grinder make it clear how to get the most out of the equipment. It would be needless duplication for us to tell you how to do the job or use the equipment.

However, we can—as we have done here—roundup the causes and cures of valve troubles so you can profit by experience, not (Continued on next page)

### THE VALVE JOB

Continued from page 37



Cutaway of a L head engine showing valve, spring, guide, tappet & cam.

have to learn the hard way. Check through a list of trouble points. These things must be considered when reworking the valve system so you can be reasonably sure the finished job will give satisfactory service.

Best place to begin a valve job is with close inspection while dismantling the valve system. The more experienced the man you put on this job the better. At no other time in the process of a valve job is the cause of failure more noticeable. This inspection will be easier—and the overhaul faster—if you place the component parts on a valve board as the valve system is torn down.

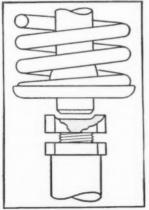
Thorough cleaning will help the inspection. Cleaning solutions and a dip tank will do a job. However due to the nature of valve deposits a power-driven, brass wire brush may be necessary to finish the job. (Steel brushes may scratch the surface, and such scratches can cause localized stresses in an operating valve that will result in fatigue fractures. For a similar reason, use of coarse emery cloth should be avoided.)

Be sure to clean the carbon out of the combustion chamber. Reason for this—insofar as valves are concerned—is to keep the temperature where it belongs. Continued operation at temperatures above those for which valves are designed results in early valve failure. Carbon acts as insulation, keeps the head from carrying off the heat.

Valve ports need cleaning too. To do so, both the intake and the exhaust manifolds should be removed to give access to both sides of the valve ports.

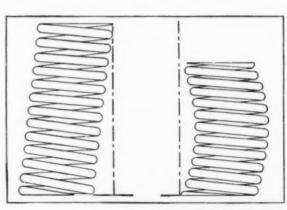
### **Deflects Grinding Pilot**

Carbon, varnish and sludge left in the valve guide can deflect the grinding pilot; result in



View of worn tappet. This causes noisy valves and undue wear to valve guides.

At right: A bent or twisted valve spring will cause valve misalinement.



inaccurate work. With a one-quarter inch drill, it is easy to run the correct size cleaner up and down the full length of the guide to be sure the deposits are completely removed.

Visual checks for a clean well-burnished guide can be made with a light held at the bottom opening. A clean, burnished surface retards carbon accumulation in engine operation.

Note: Pay special attention when cleaning top of guide to reveal counterbore, if any.

Camshaft lobe wear can adversely affect valve system operation. Valve timing can be delayed as much as  $31/2^{\circ}$  on the fly-wheel by .002 in. lobe wear. Worn lobes also will reduce the amount and duration of the valve opening. Some mechanics find it easier to check cam wear before the engine is disassembled.

On today's market are several cam lift gages with adapters for nearly all engines. They have, usually, an indicator dial that measures the lift as the cam lobe pushes the valve or the push rod through its maximum up travel.

When taking apart an overhead valve system, mark the rocker arms, brackets and rocker arm shaft so they can be re-assembled in their original position. Clean all sludge or gum formation from the inside and outside of the rocker arm shaft tube.

Blow out all oil holes in rocker arms and adjusting screws.

If the engine is designed with an orificetype oil restrictor, it is important that this be clean. Gum formation in this orifice will restrict the valve system oil flow.

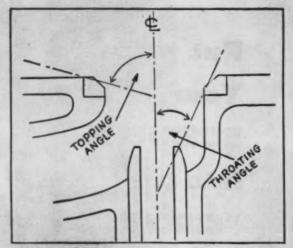
Caution: Do not enlarge this hole. Doing so may interfere with engine oil pressure.

### **Testing Spacer Springs**

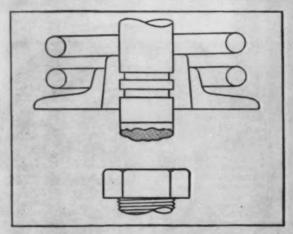
To test rocker arm spacer springs on a spring compression tester. Weak spacer springs will allow the rocker assembly to move sideways causing an uneven push on the valve stem. Check the rocker arm shaft for wear as well as each rocker arm assembly. A little wear on each may result in too much play when rocker arms are positioned on the shaft.

Push rods should be inspected for wear and damage. Look especially for bends. If bent more than .020 in., replace with a new rod.

(Continued on page 141)

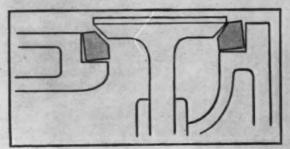


After the valve seat is refaced its width must be reduced by "topping" or "throating."



In drawing above valve stem ends should be refaced in order to insure a quiet engine.

Head bolts should be properly torqued to prevent block distortion and valve failure.



### Put Your BUSINESS into the "CIRCLE OF SAFETY"

Vehicle Safety-Checks offer a public service traffic safety program that boosts sales

By M. R. DARLINGTON, Inter-Industry Highway Safety Committee Managing Director



Above is shown the "Circle of Safety" theme for the 1958 Vehicle Safety-Check program for month of May. It will be used in the checking of customer's cars.



Check lanes will be set up on the streets in the 34 states not requiring car inspections. Motorist will be offered 10 free Safety-Checks of car's condition.

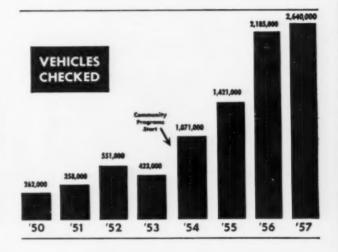
Check! Motorists get a free check of the condition of their cars; automotive businessmen share an increase in demand for parts and service; and everyone benefits from safer vehicles using our streets and highways.

The voluntary national Vehicle Safety-Check program is conducted each May immediately preceding summer and vacation travel. Motorists are offered free 10-point Safety-Check of the major items which affect the safe driving condition of their cars.

To new car dealers, tire dealers, service station operators, and garage owners, Vehicle Safety-Checks offer a public service traffic safety program that boosts sales. Those who deal in automotive service find when motorists are made aware of the importance of keeping vehicles in safe driving condition, new business follows as a natural by-product.

### Few States Require Checks

The opportunity is widespread. Only 14 states and the District of Columbia require motorists to have their vehicles inspected regularly. This means that two out of three vehicles in the nation have no official check



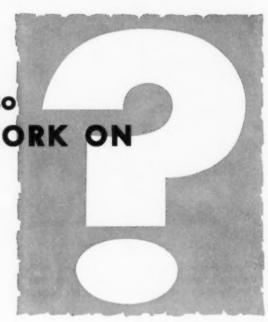
made for their safe driving condition. All vehicles in the 34 states without inspection programs are potential traffic hazards.

The annual May Safety-Check gives many motorists tangible proof that they need to keep their cars in safe driving condition. A report from the 1957 Safety-Check in Salina, Kansas, reads as follows: "One vehicle was found to have three bad tires. The party concerned drove on to town after being checked the first time and had three new tires put on his vehicle for the purpose of obtaining an okay sticker."

(Continued on page 106)

### Why are cars so HARD TO WORK ON

Digest of Detroit speech to the Lubrication Committee, American Petroleum Institute





By W. Richard Worthley Independent Sun Service Station Dealer Birminghom, Michigan

AS BUILDERS of automobiles and as manufacturers of petroleum products, you are serving the same customer that I am . . . the American motorist. If all of us do our job satisfactorily, our mutual customer will enjoy many miles of trouble-free driving.

In my 26 years in the service station

business I have seen the tremendous strides made by the car manufacturers in their efforts to give dependable, comfortable transportation to everyone. I have seen engines go from less than 50 horsepower to more than 400. I have seen transmissions improve from the point where an engineer was needed to operate one to today's completely automatic transmission which not only requires no effort, but practically requires no thought.

At the same time, I have seen matching strides made by petroleum refiners in their products. Today I am selling gasoline for passenger car use which is of higher octane quality than fuels that were used for aircraft at the beginning of World War II. We have available motor oils which assure cleaner engines and longer engine life than was ever before possible. All in all, today's motorist should be completely satisfied . . . but strange to say, he is not.

### Where to Get Service?

His problem is similar to the problem (Continued on page 136)

### $\mathbf{M}_{\mathrm{ay}}$ 1958

MOTOR AGE'S 1958 Merchandising Calendar

T.	0.	7	24 ion switch. ghts.	loss.
SAT.	10 gnals.	17	Cd in the	31 denser tions. ght gla
May 11 Mother's Day 30 Memorial Day	Check brakes, front lights & turn signals. Check toil & rear stop lights. Check steering & tires. Check mufflers & tail pipes. Check glass, windshield wipers & horn.	Check spark plugs & ignition wires. Check distributors & point gap. Check ignition timing & compression. Check fuel pump pressure. Check, clean & adjust carburetor.	Check headlight candlepower. Check dashlights, clock, radio & ignition switch. Check license plate light & back up lights. Check trunk lights & dome lights. Check parking & turn signal lights.	Check controls, blow out coil & condenser. Check belts, pulleys & hose connections. Check from, valve adjustment & sight glass. Check system pressures with gages. Check compressor oil level.
Moth	neck be	neck ig	Chesk ch	seck k
RS.	00000	00000	00000	00000
THURS.	00	15	22	53
AON. TUE. WED.	"PUT YOUR BUSINESS INTO	"MAJOR PROFITS FROM MINOR TUNE-UPS"	20 21 "LIGHT BULB REPLACEMENT BRINGS ADDITIONAL PROFITS"	"COOL PROFITS FROM AIR CONDITIONERS"
<	5 VEHICLE SAFETY-CHECK WEEK	12 MINOR TUNE-UP WEEK	19 LIGHT BULB WEEK	26 CAR AIR- CONDITIONING WEEK
Suns	4		18	22



### What to do with FLOOD-DAMAGED CARS

The flood warnings are up; read this story with care!

Palomar Garage Santa Cruz, Calif.

EAR SIRS:

"I have just finished your article in a recent issue which calls attention to your future story on the work demanded by flood-damaged cars. I thought your readers might be interested in the procedures we followed during our disastrous flood of last year.

"We had special forms printed for flood

damage and used them to facilitate making estimates of damaged automobiles. Then, when repairs were completed, the office force used the same form to bill the customer. This procedure eased the work of typing the bills, since the typist merely made a copy of the estimate.

"By the simple use of these forms, we estimate we cut our paper work by some 50 per cent.

Sincerely yours,"
Al Fanucci
Palomar Garage

Mr. Fanucci is correct! We think readers will take interest in his special damage-

estimate forms, especially at this time of year. Many sections of the country have been alerted to the danger of floods. Heavy late winter snows, combined with thawing ice from mountain regions, are deluging both rivers and dams to the overflowing point. If your shop is located in one of these "possible" danger areas, it would be wise to heed Mr. Fanucci's story, also to review the restoration of flood damaged cars.

In general, the procedure for repairing flood attacked cars is largely a universal one. The first precaution is never attempt to drive it to the shop-tow it. Once in the shop, determine the height attained by the flood waters. If they edged just above the brakes, but not as high as the engine, the wheels should be removed, the wheel bearings cleaned and repacked, the wheel cylinders examined, and the backing plate lubricated. On the rear axle, the differential should be drained and flushed. Don't overlook removing the differential's cover (if it has one) and checking for a water residue in the bottom. Finally, remove the axle and axle bearings, clean and repack with fresh grease.

### Look for Water Level

If the water level reached the top of the engine, but failed to top the carburetor. repeat the previous steps and also remove the starter, generator and distributor. The starter and generator should be dismantled, cleaned and oiled. The distributor and fuel (Continued on page 145)

### DAMAGE ESTIMATE FORMS FOR FLOODED CARS

- 1. Remove seats, door & 1/4 panels, headliner & floor mats
- 2. Wash interior and dash
- 3. Steam clean engine 4. Steam clean chassis
- Dismantel & clean engine
   New gaskets, seals & oil
- 7. Remove cover & clean timing gear
- chamber B. New case cover gasket
- 9. Overhaul carburetor 10. New carburetor repair kit
- 11. Service air cleaner
- 12. Remove & clean generator
- Remove & clean starter
- 14. Remove & clean distributor
- 15. Replace oil filter
- 16. Clean oil breather cap
- 17. Remove & clean clutch
- 18. Remove, dismantel & clean automatic trans.
- 19. New gaskets, seals & oil
- 20. Clean overdrive trans.
- 21. New gaskets & oil
- 22. Remove, clean & re-oil drive shaft universal joints
- 23. Drain & flush differential
- 24. New gasket & oil
- 25. Remove rear axles, clean & repack axe bearings
- 26. Remove & clean rear brake shoes & wheel cyl.

- 27. Remove, clean & repack front wheel bearings
- 28. Remove & clean front brake shoes & wheel cyl.

- 29. Remove & clean brake master cyl.30. Bleed & adjust brakes31. New brake fluid & master cyl. kit
- 32. Wash & dry front & rear seat cushions
- 33. Wash & dry front & rear floor mat
- 34. Wash & dry trunk compartment 35. Replace seats, door & 1/4 panels &
- headliner
- 36. Remove & clean gas tank & lines 37. Remove & clean fuel pump
- 38. Flush mud from radiator core
- 39. Clean & adjust horns
- 40. Check window regulators & re-oil
- 41. Check horn relay
- 42. Check voltage regulator
- 43. Clean & re-oil seat runs
- 44. Remove & clean heater motor
- 45. Check directional & park lights
- Radio
- 47. Speedometer & cable
- 48. Clock & gauges
- 49. Lubricate chassis
- 50. Tune motor
- 51. Wash car
- 52. Polish car
- 53. Recharge battery
- 54. Drain water from steering mass jacket
- 55. Towing



### aging your money

Part II

### **Protect against DISHONESTY**

Editor's note: This is the second in a series of Motor Age articles based on the article "Protecting Your Business Against Dishonesty." Written by Winston Mergott of the Liberty Mutual Insurance Co., the original essay appeared in the Small Business Administration pamphlet of Dec., 1957.

NCE inside a building, a burglar has his choice of stealing finished goods, raw materials, or money. Since "hot" merchandise is worth only the amount of cash which a burglar can get for it and provides a problem of transportation and disposal, too, his usual preference is to steal money. Nevertheless, losses of merchandise and money resulting from successful burglaries are numerous—chiefly because of inadequate protection, and lack of attention to obvious safeguards which could have been provided.

A little care in reducing the likelihood of loss will go a long way toward reducing this crime potential in your business.

Insecure doors, unlocked windows, or unprotected skylights are an open invitation for burglars to enter and steal. Where no easy entrance exists, one can usually be made if the price is worth the effort. However, reasonable precaution plus the installation of some inexpensive devices are adequate for most plants. For others the employment of watchmen and the use of alarm systems may be necessary.

### Use Strong Door

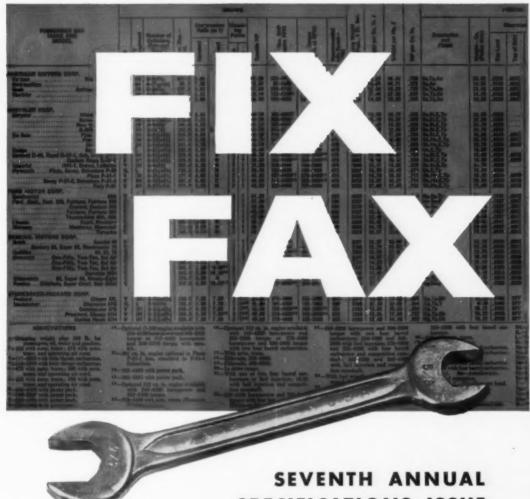
Exterior doors with glass or thin plywood panels are easily shattered or sprung. Locks which can be pulled, forced or picked render an otherwise strong door useless. Locks on the door should be of the mortise deadlock variety with pintumbler cylinder locks, key operated from the outside. If there is a possibility of someone hiding inside the building during business hours with the plan of breaking out later on, the locks should be key operated from the inside, too.

Windows furnish thieves with their chief means of entrance. Glass can be easily and quietly broken, leaving the windows exposed; nevertheless, if the time and effort required to break a window is measurably increased, the burglar may be forced to abandon his effort. Windows that are accessible from the street or from roofs of adjoining buildings, should, therefore, contain heavy wired glass, and be securely locked from the inside.

Heavy wire screens or bars furnish additional protection for windows which are accessible on the sides or the rear of the building and not readily observed by policemen or passersby.

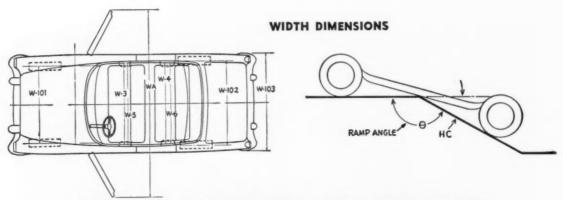
### Watch Those Skylights

Skylights are an excellent means for providing light, but they also admit thieves almost as readily. Since they are usually (Continued on page 132)



### SPECIFICATIONS ISSUE

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### 1958 U. S. PASSENGER CAR BODY DATA

All dimensions apply to 5 or 6 passenger, 4 door sedan or equivalent model.

			MISC	ELLA	NEOL	JS						GER	NERAL I	DIMENS	IONS (	ins.)		
		Glass Arei (Sq. In.)	1							L101	Over	hang	Tre	ead	(	overall D	imension	15
PASSENGER CAR					tion	anced	Control		9.0		L104	L105	W101	W102	L103	W103	WA	НВ
MAKE AND MODEL	Windshield	Back Light	Tetal	Type of Finish	Head Hinge Location	Hoad Counterbalanced	Hood Release Co	Windshield Type	Rear Window Type	Wheelbase	Front—Including Bumper Guards	Rear-Including Bumper Guards	Frank	Rear	Length Bumper to Bumper	Width	Width— Doors Open	Height —
MERICAN MOTORS CORP.  Rambler American 5801  6-5810  Rebel 5820	740.0 1105.7 1105.7	700.0 1078.6 1078.6	2615.0 3493.2 3493.2	EEE	RRR	***	Ex Ex	SC SC SC	CCCC	100.0 108.0 108.0	31.4 32.0 32.0	46.9 51.2 51.2 51.2	54.6 57.8 58.8 57.8	55.0 58.0 59.1 59.1	178.3 191.2 191.2 200.2	73.0 72.2 72.2 72.2	150.0 145.0 145.0 145.0	
CHRYSLER CORP.	1105.7 1444.0 1444.0 1586.0 1444.0 1444.0 1586.0 1444.0 1586.0 1444.0 1622.0 1444.0 1448.0	1078.6 1319.0 1319.0 1319.0 1882.0 1319.0 1319.0 1319.0 1882.0 1173.0 1173.0 1173.0 1173.0 1173.0 1173.0	3493.2 4295.0 4292.0 4282.0 4282.0 4801.0 4292.0 4292.0 4601.0 4148.0 4148.0 4148.0 4148.0 3984.0	п пппппппппппппппппппппппппппппппппппп		Y	Ex Ex Ex Ex Ex Ex Ex Ex Ex Ex Ex Ex Ex	SC S	0 0000000000000000000000000000000000000	117.0 122.0 126.0 128.0 128.0 122.0 126.0 126.0 126.0 122.0 122.0 122.0 122.0 122.0 118.0	36. 9 35. 0 35. 0 35. 0 37. 0 35. 1 35. 1 35. 1 35. 1 35. 1 35. 1 35. 1 35. 2 32. 8 32. 8	59.2 59.2 59.2 57.5 57.5 57.5 57.5 56.7 56.7 56.7 59.2 55.2 55.2	60.9 61.2 61.2 61.2 60.9 60.9 60.9 60.9 61.4 61.4 61.4 60.9 61.8 60.9 60.9	59.8 60.0 60.0 59.8 59.8 59.8 60.1 60.2 59.8 60.1 60.2 59.8 60.1 60.7 59.8	218.1 220.2 220.2 216.5 218.6 218.6 218.6 213.8 213.8 213.8 225.8 225.8 206.0 206.0	79.6 79.6 79.6 79.6 78.3 78.3 78.3 78.3 78.3 78.3 78.3 78.3	156.8 156.8 156.8 167.4 156.8 156.8 156.8 156.8 156.8 156.8 156.8 156.8 156.8	58 58 58 58 58 58 58 58 58 58 58 58 58 5
Edsel Ranger 58A, Pacer 58B Corsair 57A, Citation 57B Ford. Custom 300, 73B Fairlane 58A; Fairlane 500, 58B Lincoln Capri 53A, Preniere 53B Morcury Monterey 58A, Montclair 58B Mercury Monterey 58A, Montclair 58B	1169.5 1053.6 979.1 1250.0 1701.1 1701.1 1169.5 1169.5	1162.5 976.6 1078.3 750.0 1419.8 633.1 1504.1 1262.0	3594.4 3245.1 3290.3 2913.0 4560.6 3773.9 3890.9 3735.6	певевеве	FRRFFFFF	* * * * * * * * * * * * * * * * * * *	In In In In In In	SC C C C C C C SC SC	C C C F C F C C	124.1 116.0 118.0 113.0 131.0 131.0 122.0 125.0	35.7 35.0 35.0 35.6 37.2 37.2 37.2 33.7	59.1 51.0 54.0 56.8 60.6 60.6 57.5 61.5	59.4 59.0 59.0 60.0 61.0 59.4 59.4	59.0 56.4 56.4 57.0 61.0 59.4 59.4	218.9 202.0 207.0 205.4 229.0 213.2 220.2	79.8 78.0 78.0 77.0 80.1 80.1 81.1 81.1	148.5 149.0 150.6 163.3 157.9 157.9 148.5 148.5	58 58 57 54 58 58 58
ENERAL MOTORS CORP.   Special 48	1236.2 1236.2 1412.1 1412.1 1412.1 1412.1 1135.4 1135.4 908.0 1239.0 1239.0 1239.0 1239.0 1239.0	1178.5 1178.5 1052.0 1052.0 1052.0 1056.0 1056.0 1179.0 1179.0 1056.0 1056.0 992.5				**************************************	Ex Ex Ex Ex Ex Ex Ex Ex Ex Ex Ex Ex Ex	SC SC SC SC SC SC SC SC SC SC SC SC SC S	CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	122.0 122.0 127.5 127.5 127.5 129.5 129.5 133.0 149.8 117.5 102.0 122.5 126.5 122.0	37.6 37.6 38.1 38.1 35.6 35.6 35.6 35.6 35.8 33.0 33.8 33.8 34.5 34.5	52.2 52.2 53.5 53.5 61.8 51.7 60.2 56.7 51.7 85.8 42.2 51.9 56.4 64.0 27.0 65.2	59.5 60.0 80.0 61.0 61.0 61.0 61.0 58.8 57.0 59.0 59.7 58.7	59.0 59.0 61.0 61.0 61.0 61.0 61.0 61.0 58.8 59.0 58.0 59.4 59.4	211.8 219.1 219.1 219.1 227.1 216.8 225.3 225.3 227.1 209.1 177.2 208.2 216.5 215.5 211.7	78.1 78.1 79.8 79.8 80.0 80.0 80.0 77.7 72.8 78.8 77.4 77.4	144.6 144.6 153.4 153.4 154.0 154.0 154.0 152.4 141.4 142.8 147.6 144.3 144.3 154.4	59 58 61 61 59 59 61 59 59 59 59 59 59
Packard Packard 58L Hawk 58L Studebaker Scotsman, Champion 58G Commander 58B President 58H Golden Hawk 58H	1105.0 858.0 1105.0 1105.0 1105.0 858.0	1052.3 910.0 1052.3 1052.3 1052.3 910.0	3396.9 2866.0 3396.9 3396.0 3456.9 2866.0	венене	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR	N N N N N N N N N N N N N N N N N N N	Ex Ex Ex Ex Ex Ex	000000	000000	120.5 120.5 116.5 116.5 120.5 120.5	39.4 36.0 35.6 35.6 35.6 34.9	53.3 48.6 50.3 50.3 50.3 48.6	57.3 57.3 57.2 57.3 57.3 57.3	56.3 56.3 56.3 56.3 56.3 56.3		76.9 71.3 75.8 75.8 75.8 75.8 71.3	135.4 151.9 135.4 135.4 135.4 151.9	58 57 60 59 58 57

### ABBREVIATIONS

C-One piece curved.
CC-Compound curved.

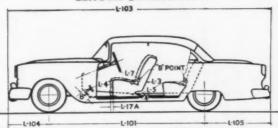
E-Enamel. Ex-External. F-Front. In-Internal. L-Lacquer.
N-No.
Of-One piece flat.
R-Rear.

SC-Single curved.
TF-Three piece flat.
Y-Yes.

### HEIGHT DIMENSIONS

### HEADLINING AT ISIN LINE TOP OF CARPET AT IS IN LINE

### LENGTH DIMENSIONS



### 1958 U. S. PASSENGER CAR BODY DIMENSIONS

All dimensions apply to 5 or 6 passenger, 4 door sedan or equivalent model.

				HEIGH	HT DIN	IENSIO	INS			WID	TH DIR	MENSIC	ONS	LI	NGTH	DIME	NSION	S
			Interior				Ex	iterior			Inter	rior				interior		
PASSENGER CAR	н	H2	нз	на	H13	H106	H107	HC	но	W3	W4	W5	W6	LI	L4	L5	L7	L17
MAKE AND MODEL	Front Headroom	Rear Headroom	Front Cushion Height to Floor	Rear Cushlen Height to Floor	Steering Wheel Clearance to Seat Cushion	Angle of Approach—Deg	Angle of Departure—Deg	Ramp Breakover Angle—Deg	Minimum Road Clearance In	Front Seat Shoulder Room	Rear Seat Shoulder Room	Front Seat Hip Room	Rear Seat Hip Room	Back of Front Seat to Rear Seat Back	Leg Room— Frant	Leg Room— Rear	Steering Wheel Clearance	Adjustment of
MERICAN MOTORS CORP. Rambler American 5801 6-5810 Rebel 5820 Ambassador 5880	35.3 36.0 36.0 36.0	34.0 35.0 35.0 35.0	11.0 10.4 10.4 10.4	13.5 14.2 14.2 14.2	6.5 5.6 5.6 5.6	20.0 21.5 21.0 21.5	14.5 14.5 14.0 13.5	15.5 14.5 14.0 12.5	6.7 RM 6.7 RM 6.5 RM 6.3 RM	51.5 57.7 57.7 57.7	49.8 57.6 57.6 57.6	58.0 59.8 59.8 59.8	45.3 60.1 60.1 00.1	24.2 27.8 27.9 27.9	44.0 43.0 43.0 43.0	37.5 40.0 40.8 40.0	16.0 14.4 14.4 14.4	6 6 6
HRYSLER CORP.   Windsor LC1-L	35.7 35.7 36.7 34.4 35.7 35.7 35.7 35.7 35.7 35.7 35.7 35.7	34.5 34.5 34.5 34.2	10.8 10.8 10.8 10.8 10.8 10.8 10.8 10.8	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	6.0	15.4 16.0 16.1 16.0 16.5 16.3 18.9 18.7 18.4 13.8 19.2 19.2		10.4 10.0 10.6 10.2 10.0 10.0 10.2 10.2 10.4 10.4 10.4 10.4	5.5 5.6 5.6 5.3 FSM 5.5 FSM 5.4 FSM 5.4 FSM 5.6 FSM 5.8 5.8 5.4 FSM 5.3 FSM	00.5 00.5 60.5 61.0 60.5 60.5 60.5 60.5 60.5 64.0 64.0 64.0 65.5 61.0	60.4 60.4 60.4 60.5 60.4 60.5 60.4 60.4 60.4 62.0 62.0 62.0 62.0 60.4 60.4	63.0 63.0 63.0 61.0 61.0	62.7 62.7 56.0 62.7 56.0 62.7 56.0 62.7 62.7 62.7 62.7 62.7 56.0	27.1 31.0 31.0 31.0 34.1 34.5 29.8 29.8	45.5 45.5 45.5 45.5 45.5 45.5 45.5 45.5	43.0 43.0 43.0 38.0 43.0 43.0 42.5 42.5 42.5 45.0 41.5 41.5 36.5	15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0	1
Ranger 58A   Paicer 58B	33.9 33.2 33.9 34.8 33.9 34.5 35.0 35.0 33.9 34.0	33.6 33.6 32.8 33.6 33.6 33.3 34.1 33.2 32.8	10.7 10.6 10.6 10.7 10.7 11.0 11.5 10.6	14.0 14.0 14.5 14.4 14.0 13.1 14.5 14.5 14.5	5.6 5.3 5.4 5.4 5.7 5.0 5.0 5.5	21.8 19.7 20.7 20.7 23.3	12.7 13.1 11.8 11.8 11.0	12.9 12.7 12.5 12.5 12.5		57.3 57.3 59.7 57.6 57.3 56.2 63.1 63.1 60.2 80.2	57.0 59.7 57.0 57.0 57.0 54.1 63.0 67.0 60.2	59.6 61.0 61.0		28.7 31.3 30.5 30.0 26.2 35.6 31.6 31.5	43.1 43.4 44.4 44.4 44.1	42.7 40.7 38.1 46.6 42.9	13.1 13.1 14.3 12.5 12.5 14.4 15.7 15.7 14.2	
Buick	34.4 36.8 35.0 34.6 34.7 36.1 34.6 34.6 35.0	35.4 34.2 34.3 N 33.5 33.5 33.1 34.3	11.2 13.5 13.5 12.9 10.8 11.8 8.9 11.2 11.2 10.4	11.7 11.7 12.6 12.6 13.0 13.0 13.0 N 11.8 11.8 11.8 11.8	5.6 5.5 5.1 5.1 6.4.8 6.4.8 6.4.8 6.5.4 7.5.5 7.5 7	18.4 18.8 16.8 18.4 18.4 20.5 19.0 21.8 21.8 21.8 17.1 17.1	13.8 13.2 13.4 11.4 14.1 12.8 15.4 12.0 12.8 14.4 13.8 13.8 11.8 11.8	12.4 11.8 12.2 12.2 12.2 12.2 11.9 12.0 14.0 14.5 12.3 11.8	6.4 6.6 6.6 6.4 6.4 7.2 6.8 FSC 5.8 FRS 6.0 FSR 6.0 FSR 6.0 FSR 6.3 FSB	56.9 56.9 58.5 58.5 59.0 59.0 59.0 59.0 59.0 56.4 46.4 49.4 56.9 56.9 56.9	56.8 56.5 56.5 56.5 56.2 56.2 N 55.7 55.7 56.2	65.5 65.2 65.2 65.2 64.6 62.1 61.9 49.1 62.5 62.5 62.0 62.0	64.8 64.8 65.0 65.0 68.0 63.1 63.1 N 62.6 62.6 63.1	31.8 35.4 35.5 35.5 35.5 35.2 35.2 35.2 35.2 35.2	43.0 43.5 43.2 43.2 44.8 44.8 44.8 44.6 44.9 44.2 44.0 43.8 43.8 44.6 44.9	41.8 44.5 44.1 45.2 45.2 45.2 42.7 42.8 N 41.2 41.8 41.8 41.8	15.0 15.0 14.1 14.6 14.6 13.9 13.9 13.9	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
STUDEBAKER-PACKARD CORP. Packard Packard SIL Studebaker Scotsman, Champion 58G Commander 58H President 58H Gelden Hawk 58H	38.0 35.8 36.0 36.0	34.9 35.0 35.0 35.0	11.8 12.6 12.6 12.4	13.1 12.1 12.1	5.6 3 5.8 3 5.8 5 5.8	20.0 20.0 20.0 20.0	17.0 15.0 15.0 15.0	14.5 14.5 14.0 14.0	5.3 LEP 6.5 ERC 5.3 LEP	55.5	53.0 54.4 54.5 54.4	59.5 59.5 59.5	58. 59. 59.	0 27.0 0 27.5 0 27.5	44.0 43.0 43.0 43.0	36.0 39.0 39.0 41.0	13.0 13.3 13.3 13.3	3 3 3

ABBREVIATIONS
BST—Bottom of spare tire well.
ERC—Engine rear cross member.
F—Frame.

FBP—Frame bottom plate.
FRM—Front end of rear muffler.
FRS—Front of rear spring hanger.
FSS—Frame side bar junction plate.

FSM—Frame side member.
FSG—Front suspension cross member.
FSR—Frame side rail.
LEP—Left exhaust pipe.

N-No or none.
RM-Rear of muffler.
RRR-Right rear resonator clamp.

## GENERAL ENGINE DATA, PISTONS

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-	evisV nemegnsmA	TIII	THITHITITE THE TERMINE	IIIIIIIIII	IIIIIIIIII	IITIII
	Type	==>>	>>>>>>>>>>>>>	>>=>>>>>>	>>>>=	>>=>>>
PASSENGER CAR	MAKE AND MODEL	AMERICAN MOTORS CORP. American 5801 6-5810 Retri 5870 Amtussaudor 5650	CHRYSLER CORP.  Windoor LC3 New Vorter LC3-H 3000. LC3-H 3000. LC3-S Decige Coronel LD2-H Adventurer LS3-H Coronel LD2-M Custom LD2-M Custom Pays LD2-M Custom Pays LD2-M Plymouth Plazs, Suvoy, Belvedere LP7 Plymouth Plazs, Suvoy, Plymouth Plymouth Plazs, Plymouth	Parcer (Corair STA, Gitation 57B, 48B, 78B Ford Custom 300, Fairlane 500, 51A, 57A, 58B, 58B Ford Custom 300, Fairlane 500, 51A, 57A, 58B, 53A, 68B Lincoln Gapri, Premiere, Continental Mercury Montey Montey Montey Montey	Buick Special 40 Buick Contact 61 Buick Contact 61 Buick Cadilate Cadilate 62.60, 78 Chevrolet 6.Defry 8.62, 60, 78 Chevrolet 8.00, 78 Chevrolet 8.00, 78 Chevrolet 8.00, 78 Chevrolet 8.00 Chevrolet 85 Chevrolet 85 Super 888, Ninety-Ealth 8 Powflate Chief 86-23, 69meville 96-28 Sup Chief 86-29, 69meville 96-28	STUDEBAKER-PACKAND CORP. Packard 38L Packard 38L Hawk 58L Studebaker Scotsman, Champion 56G Commander 38B President 58H Golden Hawk 58H

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## PISTON RINGS, PISTON PINS, AND CONNECTING RODS

	Type Oil or Compression	MAKE AND MODEL MOD	Rambler MOTORS CORP. 6-5801, 5810 314, C C C N AI 8-5820 319, C C C N AI E-5820 319, C C C N AI	Chryster CORP. 64C1.LC2 318 C C O N C C C C N C C C C C C C C C C C	Foreign Mottor CO.  8-Ranger, Pacer 42, C C O N ACI Ford 8-Creation Galactic Citation 41, C C O N ACI Ford 6-Custom 300, Fairbare 300 35, C C O N ACI 8-Fairbare 300 4 C C O N ACI 8-Fairbare 4 C C O N ACI 8-Fairbare 4 C C O N ACI Mercury 8-Monterey, Montcleif 41, C C C O N CI	GENERAL MOTORS CORP.         8-40, 80, 36, 70, 700         4%         C         C         O         N         CI           Cadillac         8-40, 80, 70, 700         4%         C         C         O         N         CI           Chevrolet         8-1100, 1500, 1500         3%         C         C         O         N         CI           Oldsmobile         8-810, 1500, 1500         3%         C         C         O         N         ACI           Pontlac         8-88-387, 3%         C         C         O         N         ACI           Pontlac         8-88-27, 88-28         4,1         C         C         O         N         CI	STUDEBAKE   STUDEF ONLY   Ower,	ACI Alloy cast iron.
	Compression	Coating Width	Ch10933 <sup>3</sup> .015 Ch20778 .015 Ch2 .0778 .015	TP 0780 018 018 018 018 018 018 018 018 018 0	Ch4 .07787 .018 Ch5 .07783 .018 Ch1 2 .0778 .015 Ch1 2 .0778 .015 Ch4 .0778 .020 Ch5 .0778 .020 Ch6 .0778 .020	Chi 0775 .020 Chi 0778 .083 WR .0633 .012 Chi 0778 .015 Chi 0778 .016 Chi 0778 .016 Chi 0778 .018	Gr . 0781 . 912 CI Gr . 09381 . 912 CI Gr . 09381 . 912 CI Gr . 0981 . 912 CI Gr . 0981 . 912 CI Gr . 0981 . 913 CI Gr . 0981 . 914 CI Gr .	C Compression.
	iio	Material Coating Width	St Ch .0245 St Ch .0245 St Ch .0245	0.00 1 10 0.00 1	28 28 28 28 28 28 28 28 28 28 28 28 28 2	St. N. 1830 CI. N. 1875 St. Ch. 1845 St. Ch. 1845 St. Ch. 2010 St. Ch. 2010	CI Gr .1875 CI BI .1835 CI Gr .1875 CI Gr .1875 Transced.	-
		Gap	035	000000000000000000000000000000000000000	935	0.035		58
	steb	Location of Expan	0R 1016 0R 1016 0R 1016	OOR HIMSS ON NICE AND	SE S	OR 1118 OR CS OR HAS OR 1117	OC 5120 OR 5120 OR 5120 Copper-lead Copper-lead Chrome stea	Ferrox. Forged steel.
		цавигу	2.7500 3.1870 3.1870	3.1500 3.1500 3.1500 3.4400 3.4400 3.4400 3.4400 3.4400 3.1500 3.1500 3.0000	3.1600 3.1600 3.0230 3.1630 3.4900 3.4900	3, 5000 3, 0930 3, 0930 3, 0000 3, 2500 3, 2500	3.0625 2.6250 3.0625 3.0625 alloy, steel lanker d. steel backer d. steel.	1
-		Diameter	8597 R 9307 R 9307 R	98840 F P P P P P P P P P P P P P P P P P P	9752 F 9752 F 9122 F 9752 F 9752 F 9752 F	9996 R 00000 R 8663 R 9272 R 9805 F	CCC	
	Type	moitesol Significant IsineteM	222	CCCNNCCCC	dddd d Seessanse	2222262	HAS HAMPS HAMP MAY	N-No
	Clearance	noteiq at	996 96 996 96	0002 0003 0003 0003 0003 0003 0003 0003 0003 0003 0004 0003 0006 0003 0006 0003 0006 0003 0007 0003 0007 0003 0007 0003	0002 0002 0002 0002 0002 0002 0002 0002 0002 0002 0002 0002 0002 0012	.0004 .0011 .0001 N .0002 N .0002 N .0002 N .0000 .0000 .0000	144   N   10002   N   N   1141   N   N   N   N   N   N   N   N   N	of none.
		feeffon noisseriO noisi9 ni	TW	22222222222222222222222222222222222222	2222222	E E E E E E E E E E E E E E E E E E E	N N N N N N N N N N N N N N N N N N N	The terms
		IsiretaM	1145	HAMPS DOFS DOFS HAMPS HAMPS HAMPS HAMPS	00000000000000000000000000000000000000	11041 1041 1136		Sherve
-		Weight (et.) Length	23.00 6. 27.66 6. 27.60 6.	277728 288778 277828 2778 2778 2778 277	25.70 6. 24.05 6. 24.05 6. 27.73 6. 27.73 6.	28.28.28 28.28 28 28.28 28 28.28 28 28.28 28 28 28 28 28 28 28 28 28 28 28 28 2	23.71 6.6250 8ab 19.04 6.3750 8ab 23.77 6.6250 8ab PF Press ft. PPF Plam press ft. R Connecting rod. R Right. TP Tirplact. TP Tirplact.	
H	-	(center to center)	6.6250 Bab 6.3750 Bab 6.3750 Bab	6200 Lbs 9500 Lbs 9500 Lbs 3500 Lbs 3500 Lbs 3500 Lbs 3500 Lbs 8100 Bmg 6200 Bmg 8100 Lbs 8100 Cbs 8100 Bmg	5400 5400 5400 5400 5400 5400 5400 5400	1000 Ais 6250 Mor 8125 Beb 7000 Beb 7000 Beb 6230 Abs	6.6250 Bab 6.6250 Bab 6.6250 Bab 6.6250 Bab Fress fit. Prass fit. Prass fit. Tin-plated. Tin-plated. War-residual	Cale Transfer
ŀ	Bearing	Overall	.9600 .9670 .0570	9080 -8750 -8750 -8770 -8270 -8270 -8750 -8750 -8750 -8750 -8430		. 8200 1.0080 1.0080 8170 8260	. 8430 . 8430 	
1	guj.	Clearance	00013	000000000000000000000000000000000000000	90000000000000000000000000000000000000	.0013 .0017 .0017 .0020	. 0013 . 007	

### CRANKSHAFTS, CAMSHAFTS

		Chain	Pitch	375	375 375 375 375 500 375 375 376 300	500	33 5000 5		J
	9	Timing Ci	чирим	1.0000	1.1200 1.1200 1.1200 1.0200 1.1200 1.1200 1.1200 1.0200	.8640 .8640 .8640	6880 6375 8750 8750 8438		9 4
Ì	Type of Drive	F	No. of Links	28	222242224	222222	58×8888	ZZZ	tion. ed. sted di n allo,
	Туре	no nes lainsti	Sprocket Ma	22	555555555	555555₹	COL COL COL	\$375 \$375 \$375 \$375 \$375 \$375 \$375 \$375	ast iron
CAMBINAL		terror	Crankshaff ( Sprocket Ma	117	HHMMS SHIP	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	SMP 1118 St 1140 CHS	555	RF - Rubber and friction. RF - Rubber Boated. RM - Rubber mounted disc. RMD - Rubber mounted disc. SAI - Special alloy iron. SGI - Special alloy iron. SGI - Special and iron alloy. SI - Sincered iron.
1		uj	Gear or Cha	55	555555555	5555555	5505555	000	RFF R RM FFI F RMD F R RMD F R RMD F R RMD F R RMD F R RMD F R RMD
	Bearings		Mumber	4.0	0.0000000000000000000000000000000000000	1010410101010	***********	646	-
	Bea		Material	9 9	ڎڎٚڎڎڎٝڎڎڎ	88888888888888888888888888888888888888	222222	999	acked
			Material	SCC	5555555555	ACI SAI SAI SAI A	AAAAAAA AAAAA	ACC	a. steel h cked.
			Location	RS	Cen See See See See See See See See See S	55 55	\$ 500000 \$ 500000	RS Cen	cast iro iganese sabbitt, teel bar loy iron odular i
	nkpin	Rod Cra	Connecting l	2.0952	2.2500 2.3800 2.3800 2.3800 2.3800 2.3800 2.3800 2.3800 2.3800 2.3800 2.3800 2.3800	2.4384 2.2984 2.2984 2.1884 2.4384 2.5896 2.5896	2.2495 2.2500 2.3115 1.9995 1.9995 2.2500	2.0000 1.8125 2.0000	HCI – Hardened rast iron.  MMS – Hardened rast iron.  L – Let, Let mangares steel.  L – Let – Lead base bablitt, steel backed.  MMS – Moraine, steel lastked.  M – No or none.  P Al – Pearlitte alloy iron.  P MI – Pearlitte alloy iron.  P MI – Pearlitte alloy iron.  R – Rubber abserstion.
			Direction of Cyl. Off-set	22	ZEZZEZZZZ	ZZ EZ	ZZZZZZZ	z	IMS II.
			No.	None 2.4987x .9500	2.5000x1.6250 2.6900x1.6250 2.6900x1.6250 2.6300x.9400 Norte 2.5000x1.5600 2.6300x.9400 2.6900x1.6250 Norte 2.5000x1.6250 2.5000x1.5500	2,7488x .9070 2,8998x .9550 Mono 2,488x .9070 2,7488x .9070 2,8988x .9650 2,8988x .9650	. 4965x1 . 1050 . 6250x1 . 6220 None . 2963x1 . 1690 . 7500x1 . 1950	.5000x1 .5460 None .5000x1 .5460	steel.
		Bearing Effective Length	No. 4	2.4795x1.5310 2.4987x .9500	5000x 9050 6900x 9050 6900x 9050 5300x 9400 5000x 8420 5000x 8420 5000x 8420 5000x 8420 5000x 8420 5000x 8420 5000x 8420 5000x 8720	7488x 9070 2 8988x 9550 2 4884x 3250 2 7488x 9070 2 8988x 9950 2 8998x 1250 2	4965x . 8040 2 6250x . 9070 2. 7770x1 . 1890 2863x . 7720 2. 77500x . 8180 2. 6200x1 . 1300 2.	5000x . 9060 2. 0625x1. 5310 5000x . 9060 2.	tween cylinder of and bardened alloy. I, steel backed. Is steel bub. Is backed.
	uring	and Bearing Eff	No. 3	2.4795x1.1250 2. 2.4987x .8500 2.	5000x1 1510 2 6900x1 2010 2 6900x1 2010 2 6900x1 2010 2 5000x1 2010 2 5000x1 2010 2 6900x1 1010 2 5000x1 1500 2 5000x1 1500 2	2. 7488x1 1210 2. 2. 6998x1 1190 2. 2. 4964x1 3540 2. 2. 4984x1 1210 2. 2. 7488x1 1190 2. 2. 6998x1 1190 2. 2. 6998x1 120 2.	4965x .8040 2. 6250x .8070 2. 7460x .8820 2. 2963x .7820 2. 77500x .8180 2.	5000x .8050 2. 0625x1.1250 3. 5000x .9060 2.	Con-Center, between cylinder banks. CM-Chain. CMS-Carburized and bar-lened steel. CH-Cast from. CB-Copper lead alloy. CB-Copper lead alloy. CB-Copper lead steel backed. CS-Celeron with steel hacked. DRS-Drop Graged steel.
	Main Bearing	ameter		2500 2	NONNONNON	9070 2. 9550 2. 1000 2. 9070 2. 9950 2.	8040 9070 2.2 9070 2.2 8180 2.2 8400	9060 1250 3.	
	N	Journal Diameter and	No. 2	.4795x1.1250	5000x 6900x 6900x 6900x 5000x 5000x 5000x 5000x 5000x	7488x .9 8988x .9 4984x1 .1 4984x .9 7488x .9 8998x .9	4985x .86 6250x .96 77150x .96 2963x .77 2963x .77 7500x .94	5000x .90 0625x1.17 5000x .90	ed with bab- composition ed aluminum
				250 2.	9080 2. 9080 2. 9080 2. 2400 2. 2400 2. 2400 2. 2400 2. 8720 2.	9950 9950 9950 9950 9950 9950 9950	8040 2. 9070 2. 7820 2. 7820 2. 7820 2. 8180 2.	3090 2.	fabric fabric d back oacked
			No. 1	4795x1.1250	5000x 6900x 6900x 6300x 6300x 6300x 6300x 5000x 5000x 5000x	2.7488x.90 2.6998x.91 2.4984x1.10 2.4984x.90 2.7488x.99 2.6998x1.50	4985x 6250x 6840x1 2963x 2963x 7500x 6200x	5000x1 0625x1. 5000x1	Als—Atuminum, steel backed with ball- lift overlay.  Bfe-Backlet and falcie composition with steel butb.  Bgs—Babhitt on steel backed aluminum  Bhlt.  Babhitt steel backed.
			Clearance	00012	00000000000000000000000000000000000000	0015	0013 0017 0021 0021 00118 2.00118	0017 2.	Als—Aluminu Bitt ove Bitt—Batti ove with site
			IninataM	B Sb B Sb		5565555	Mabs Mabs Mabs Bab Bab Bab Bab Bab	999	
			Crankshaft End Play	0900	0045 0045 0045 0045 0045	000000000000000000000000000000000000000	0000 0000 0000 0000 0000	00045	l back ed Di
		Taken	Up by Bearl		wwwawwaw	пинини	0000000	0,00	r, stee d bach d 4, .0
-			Vibration Dampener	* *	00000×0000000000000000000000000000000	1111111	PARTIES BE	RMD	Rear bearing is Durex, steel backed.     7—No. 3 and 4, .0018.     Rear backed Durex     8—No. 2, 2013; No. 3 and 4, .0018; No. 5, .0023, .0023, .0018; No. 2, 3, 4 and 5; .0018.     11—No. 2, 3, 4 and 5; .0018.
-			IninstaM	DFS	20000000000000000000000000000000000000	PANINAA	1046 1145 FS FS 1145 1046	1048	bearin 3 and 4 bearing 2, 0013 0023. 4, 005
		PASSENGER CAR MAKE AND MODEL		AMERICAN MOTORS CORP.  6-5801, 5810  8-5820, 5880	178 178 173-8 173-8 173-7 173-173-7 173-173-7 173-173-7 173-173-7 173-173-7 173-173-7 173-173-7 173-173-7 173-173-7 173-173-7 173-173-7 173-173-7 173-	B-Ranger, Pacer B-Creatin Citation 300, Fairbane 500 B-Custom 300, Fairbane 6-Fairbane 500, Thunderbird 6-Fairbane 500, Thunderbird 8-All	MOTORS CORP.  8-40, 60, 50, 70, 700  6-1100, 1500, 1500  8-1200, 1500, 1500  8-8-85, 58-87, 58-78	R-PACKARD CORP. 8-58L 8-58L 8-58C 8-58C 8-58C 8-58C	MS age babbitt on age babbitt on see babbitt on room (bored in
				AMERICA	CHRYSLER COMP Chrysler De Sate Dodge Imperial Plymouth	FORD MOTOR CO Edsel Fard 6-Custon Uncoln Mercury	GENERAL N Buick Cadiliae Chevrolut Oldsmebile Portiae	STUDEBAKE Packard Studebaker	ABBREVIATIO Center bearing is tin b Barer

## VALVE TIMING, LUBRICATION, AND EXHAUST SYSTEMS

Charge   C	Part	PASSENGER CAR MAKE AND MODEL	CAR	Operating	T out	Mark Lecation	(.0	On Intake		Enha Co.	n sa	uo	Opening (Deg.)	Conn. Rod,		Pins Cost	g Goar	ellaW 19	edyl qmi	Presente No Service No	source find gn	existral liO	Her System	Replacement ify of Crankcase, Fifter al.	eben Oil Grade	( sold ?	E. Mos.) ner to Subsero	E, Nos.)
Fig. 12, 12, 12, 12, 12, 13, 14, 14, 14, 14, 14, 14, 14, 14, 14, 14	## 151. LEX. LEX. PART   1944   VO 12.0 19.0 19.0 19.0 19.0 19.0 19.0 19.0 19	AMERICAN MOTORS CORP.	6-5801	99 Intek	Exha	imiT 33	neq0 55	Well min		8.8 5.8	L 9/1/	Pura Pura Pura Deg	Walvi 62	misM ere	02 02 0	Tapp	imiT www	Cylin	1110 000		I IIO mmn	46.	-		naA SSS		900	ogyT Nº20
## 4.03-4   High Prof. Vol. 13:0   27:0   28	Colored Horse, Part   Held   Vol   120	CHRYSLER CORP.	8-5820	Hyd Hyd	Hyd Hyd	99 9	12.	5 51		53.5			128.		non E		no ž	N N	30 œ		2 E				8 8	€ €		S 02
LSS. LSZ. LSS. Hydr Hydr Hydr Hydr Hydr Hydr Hydr Hydr	Half, Leg. Leg. High Hyd VO 15.0 697.0 220.0 620.0 220.0 12.0 P MIN MIN PROPERTY HYD Hyd VO 15.0 697.0 220.0 620.0 220.0 12.0 P MIN PROPERTY HYD HYD HYD HYD HYD HYD HYD HYD HYD HY			Hyd Dight	Hyd 024H	2999	35.55	55.55					8888		EEE		NEW I	NEE.	00 00 00 0		222				8888	3333		0008
### ### ### ### ### ### ### ### ### ##	### Color Hyd	De Soto Dodge	LS2	110 101 101 101	D PAGE	999	12.0.2	2004					2,5,8		s s E		Z Z Z	EEE	x cc cc c		EEE				8888	333		do s
### Parameter   Pa	B-Ranger, Parer Hydr Hydr VD 22,0 88.0 256.0 88.0 192.0 P Mils P	Imperial Plymouth	100 100 100 100 100 100 100 100 100 100	PP PP PP	PPPP	2000	0.6.5.5.0	45,58					88823		SESS		ZZZZ	EEEEE	E 0E 0E 0E 0		EEEww				****	3333	80088	SC RF
Paragraph   Para	B-Ranger, Placer Hydr Hydr VD 222 0 683 0 226.0 683 0 182.0 PM P PS PS R 80 1000 E SS FF C 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		8-LP2-H Fury	.012H	018H	200	17.	47.					28		W.S.		M	S.	œ		u				8	3	SC	
8-80, 90 Hyd Hyd H8 23.0 77.0 282.0 66.0 37.0 282.0 142.0 P S P Dr SN G 40 1600 M S1 FF E1 5 20 20 Hyd Hyd Hyd H8 34.0 83.0 287.0 183.0 P S P Dr SN G 40 1600 M S1 FF E1 5 20 20 Hyd	8-80, 90 Hyd Hyd HB 25.0 77.0 282.0 66.0 37.0 282.0 PS P Dr SN G 40 1600 M St FF E1 5 20 20 Hyd Hyd HB 34.0 83.0 287.0 78.0 41.0 287.0 158.0 PS P Dr SN G 40 1600 M St FF E1 5 20 20 Hyd		8-Ranger, Pacer 8-Corsair, Citation 6-Ali Justom 300, Fairlane 8-Fairlane 500 8-Fairlane 8-Fairlane 8-Ali Wonterey, Monttair 8-Parklane	619 618 618 618 618 618 618 618 618 618 618	11 19 19 19 19 19 19 19 19 19 19 19 19 1	998888999							28.88.88.88.88.88.88.88.88.88.88.88.88.8		00000000 WWWWWWWW		## 00005 mm	22222222	~~~~~~~~						22222222	33333333	00000000	0000000
8-2.6. 6.7.70 Hyd	8-8.07.00 H/d Hyd Hyd Hyd H8 31.0 287.0 85.0 Hyd H8 5 P D D D D D D D D D D D D D D D D D D	GENERAL MOTORS CORP.	8-80.50		PAN	22		83.0					142.		so so	مم	òò	SS	00		22				888	333	SSS	
8-88, 888 Hyd Hyd VD 112 6 37-5 280.0 64.5 15.5 280.0 28.0 P S P P D G 405.00 E S1 FF E1 9 20 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	8-88, 888 Hyd Hyd VB 126 87.5 280.0 64.5 15.5 280.0 28.0 P S P P P G 40-500 E S1 FF E 9 20 4 4 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Cadillae Chevrolet	8-70, 700 8-62, 60, 75 6-1100, 1500, 1700 8-1200, 1600, 1800		pppp	9929		83.0 83.5 87.5					28.25.28.28.28.28.28.28.28.28.28.28.28.28.28.		00 00 00 00	2222	P No.	Z = Z Z	0000		Σωωω				2222	3333	00000	SC
## 584 F-581 0244 VD 1110 54: 0 24: 0 52:	## Gelden Hawk   024H   VD   110   546.6   516   140   245.6   51.0   54	bile	8-88, S88 8-98		PPP	9888		45.0					28		00 00 00 00	2220	442	242	9999						2222	***	2808	
ANALL ANALL OF THE	.024H .024H VD 11.0 54.6 245.6 51.6 14.0 245.6 25.0 P S P No2 UJ C 40-1500 m of PT C J J J	STUDEBAKER-PACKARD CO Packard Studebaker	18	924H 924H 924H	024H 024H 016Co 024H	99999		22622	245.6 245.6 245.6 245.6 245.6				88888		000500	22222	Noz Noz Noz Noz	33333	00000		u\Suuu\S				888888	333333	00%00	SSCOO

## VALVES, INTAKE AND EXHAUST

		PASSENGER CAR MAKE AND MODEL		AMERICAN MOTORS CORP.  Rambier 6-5801  6-5810  8-8220  8-8280	CHRYSLER CORP.  Chryster 8-LC1.LC3-K B-C3-K	FORD MOTOR CO.  Edsel S-Ranger, Pacer 8-Corsair, Citation Ford 8-Custom 300, Fairlane 500 8-Fairlane 500 8-Thunderblin Lincoln 8-Monterey, Montalair 8-Park Lane 8-Park Lane	GENERAL MOTORS CORP. 8-40 Buick 8-60, 50, 70, 700 Cadillize 6-1100, 1500, 1700 Chevrolet 6-1100, 1500, 1700 Oldismobile 8-82, 58-88, 58-79 Pentiac 8-82, 58-27, 58-27,	STUDEBAKER-PACKARD CORP. Packard 8-58L Hawk Studebaker 8-588, 58B, 58B, 58B
		enethild :	Hydraulic	Std	Std	NA NA Std	25 S S S S S S S S S S S S S S S S S S S	2222
evis/ tensity	V 101 X3 10	novision (Intake	Special P Rotation	ZZZZ	11 12 12 12 12 12 12 12 12 12 12 12 12 1	000000000	SSSSSSSS	ZZZZ
	1-	ntio—to	Rocker R	N 1.463 1.500	86888888888888888888888888888888888888	22222222	500 500 500 500 500 500 500	.500 N.500
1			Material	\$008 \$008 \$008	00000000000000000000000000000000000000	SSCS SS	CNS CNS CNS HAS HAS HAS 3140 SCS	8645 CNS 8645 8645
		<b>uphue</b>	Overall L	4.781 4.827 4.827	4.780 5.080 5.080 4.780 4.780 4.310 5.090 4.840 4.840	9 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	4, 704 4, 704 4, 794 6, 386 4, 912 4, 812 5, 310	5.156 4.344 5.156
		Hana natam	Actual Or	1.469	2.000 2.000 2.000 1.950 1.530 1.840 1.530 1.530 1.530 1.530	2.025 2.085 1.780 1.925 2.027 2.027 2.045 2.045 2.045	1.875 1.875 1.875 1.720 1.720 1.750	1.656 1.656 1.344 1.656
8	2	(*60	Angle (De	39 8 8 8 8	A A A A A A S S A A A A A A A A A A A A	8 45.1.2 8 60.1.2 8 60.1.2 8 60.1.2 8 60.1.2	244 E 24 E 8	5555
Seat	pai	Isineti	M meenl	ZZZZ	222222222	ZZZZZZZZZ	2222222	2222
Starr	210	(In.)	Diameter	3415 3415 3415	3700 3700 3700 3700 3700 3700 3700 3700	3715 3420 3420 3715 3715 3715	3720 3420 3414 3419 3419 3419 3400	3438 3438 3125 3438
E		earance.	Guide Cle	0028 0026 0021 0021	0020 0020 0020 0020 0020 0020 0020	000000000000000000000000000000000000000	0025 0015 0015 0019 0019 0025	0025 0025 0025 0025
			Lift (In.)	324 366 375 375	389 389 389 389 389 405 405	2388 2388 244 247 247 247 247 247 247 247 247 247	378 453 451 399 370 370	344 359
		ď	Valve	39.0 67.5 88.0 88.0	83.0 83.0 100.0 72.0 83.0 72.0 72.0 72.0	99.0 775.0 775.0 99.0 99.0 100.0 100.0	42 62 62 8 75 0 8 75 0 8 75 0 8 75 0 9 75 0	50.0 50.0 50.0 80.0
Springs	- 1	Pressure (lb.)	evisV neqO	78.5 120.0 155.0 155.0	177.0 177.0 188.0 188.0 188.0 118.0 180.0 177.0 115.0	189.0 250.0 169.0 169.0 189.0 250.0 250.0 250.0	91,52 86 03 166.0 202.0 164.0 164.0 1227.0	110.0 110.0 88.0 110.0
		-	Valve	1.750	1.690 1.680 1.860 1.860 1.860 1.860 1.860 1.690 1.690	1 820 1 780 1 780 1 820 1 820 1 830 1 790	1,530 <sup>2</sup> 1,530 <sup>2</sup> 1,856 1,696 1,520 <sup>4</sup>	2.031 2.031 1.656 2.031
		Length in.	evisV neq0	1.440	1.310 1.220 1.220 1.380 1.310 1.310 1.310	1.420 1.390 1.420 1.390 1.390 1.390	1.1552 1.110 <sup>3</sup> 1.462 1.306 1.306 1.437	1.672
	1		InhateM	2112N 2112N 2112N 2112N	WCCS CS CS CS CS CS CS CS CS CS CS CS CS	AAA AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	SCS S SCS 8728 HAS HAS 201	2112
-		tฏBue	Overall L	4.781 4.759 4.827 4.827	4 740 5 080 5 080 6 780 4 780 6 780 6 780 6 880 6 880 6 880 6 880	5.456 5.375 5.383 5.383 5.383 5.383 5.383	46.70 4.813 4.823 4.823 6.300	5.156
-		lis10	Actual Ov	1.281	1.500 1.750 1.750 1.600 1.500 1.500 1.750 1.750	1,555 1,775 1,510 1,775 1,775 1,775	1.500	1.219
-			and blank	6637	2444444444	88 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	24444444	66446
3	100		aM heen!	2222	2242242242	255555555	SSSSSSSS	2222
-	-	(ln,)	Diameter	3410	3700 3700 3700 3700 3700 3700 3700 3700	3407 3407 3407 3407 3407 3407 3407 3407	3418	3438
Cham	maze	arance	Guide Cle	0028	0030 0030 0030 0030 0030 0030	9038 9038 9038 9038	0040 00018 00024 00031 00031	9025
-			Lift (in.)	361	389 389 389 389 389 389 389 389 389 389	££\$\$\$\$\$£	376 423 451 388 388 388 370	88.78
		4	Valve	38.0 88.0 88.0	100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	98.0 75.0 75.0 100 100 100 100 100 100 100 100 100 1	86.23.33.55.00 9.00.00 9.00.00 9.00.00	3323
		Pressure (fb.)	evleV neqO	78.5 120.0 155.0	177.0 188.0 180.0 200.0 200.0 115.0 115.0 115.0	280.0 280.0 280.0 169.0 189.0 280.0 280.0 280.0	2227 2227 2227 2227 2227 2227 2227 222	110.0
Soringe	- 1	-	Valve	1.750 1.813 1.813	1.690 1.690 1.860 1.860 1.690 1.690 1.750 1.690	1.820 1.780 1.780 1.820 1.820 1.790 1.790	1.5302 1.830 1.886 1.686 1.686 1.837	2.031 2.031 1.656 2.031
		(in.)	evisV neq0	1.438	1,310 1,470 1,470 1,380 1,380 1,310	1,390	1.1567 1.1067 1.306 1.306 1.1507	1.672

AS-Austenitic steel.

Bo-Both intake and exhaust.

CNS-Chromium nicks steel.

CS-Chromium steel.

E-Exhaust.

HAS—High alloy steel.

NCM—Nickel chromium moly steel.

SCS—Silicos chromium steel.

S.G.—Steel.

N.N. or none.

A.N. or none.

A.N. or svalishe.

### CURRENT PASSENGER CAR PRICE, WEIGHT AND BODY TABLE

Following are prices at factory for cars with standard equipment as of March 24, 1958 State or local taxes, transportation and finance charges and optional equipment are extra.

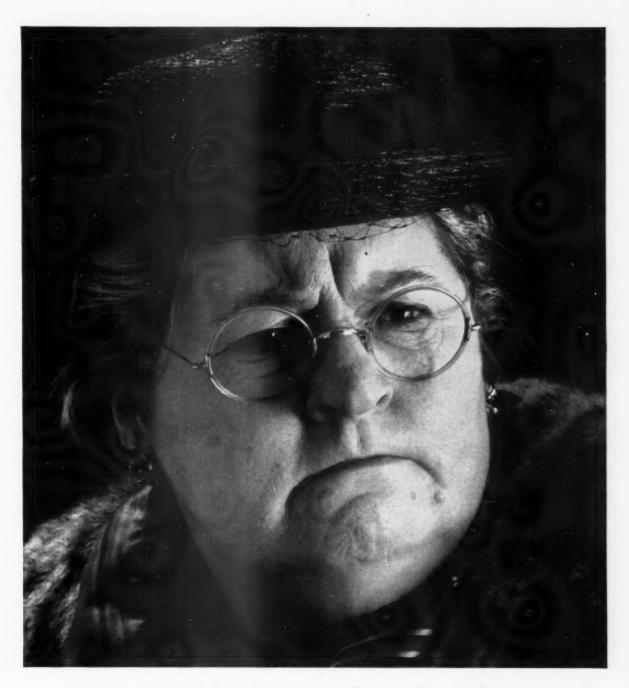
BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Mandling Charges	Suggested Price at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Mandling Charges	Suggested Price at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	harge	Suggested Price at Factory including Federal Taxes	Shipping Weight	BODY MAKE AND MODEL	List Price at Factory without Federal Taxes	Federal Taxes and Handling Charges	Suggested Price at Factory including Federal Taxes	Shipping Weight
AMERICAN			COR	P.	CHRYSLER DODGE, Cont'd					FORD MOTO	OR C	_			GENERAL M	ото		cont'	d
American DeL. Sedan, 2d	1631			2463	Regal. V8 Lancer, 2d	2966	234	3200		Sta. Wags. V8 Ranch Wag., 2d	2293	186	2479	3620	Imperial	7950	725	8675	5425
Sup. Sedan, 2d.	1710			2475	Sta. Wagons Suburban, 2d	2715	215	2930	3875	Ranch Wag., 4d. Del Rio Wagen	2343 2392	190 193	2533 2585	3677 3625	CHEVROLET* Delray V8				
Sedan, 4d	1875	172	2047	2947	Sierra, 2s Sierra, 3s	2775 2907	220	2995 3137	3930 3990	Ctry. Sed., 6p. Ctry. Sed., 9p.	2442 2542	197 204	2639 2746	3682 3750	Utility Sed., 2d. Sedan, 2d	1924 2005	196 203	2120 2208	3356 3399
Sedan, 4d H. T. Sedan, 4d Sta. Wagon, 4d	2008 2008 2302	184 189 204	2212 2287 2506	2960 2983 3069	Cus. Sierra, 2s Cus. Sierra, 3s	2940 3072	232 242	3172 3314	3955 4035	Country Squire Thunderbird Tudor	2663 3330	213	2876	3787	Sedan, 4d Sta. Wagon, 2d	2055 2294	207	2262 2520	3442 3696
Custom 6 Sedan, 4d	2135	192	2327	2968	IMPERIAL Imperial					Convertible	2000			3700	Sta. Wagen, 4d Biscayne V8	2344	230	2574	3743
Sta. Wayon, 4d Rebel, Sup. V8	2409	212	2621	3079	Southampt., 2d. Southampt., 4d.	4417 4516	347 354	4764 4670	4540 4795	LINCOLN Capri					Sedan, 2d Sedan, 4d Sta. Wag., 4d, 6p.	2181 2441	216	2397 2678	3450 3751
Sedan, 4d Sta. Wagon, 4d	2149 2423	193 213	2342 2636	3300 3410	Sedan, 4d Crown	4516	354	4670	4590	Hardtop, 2d Sedan, 4d	4415 4553			4735	Sta. Wag., 4d, 9p. Bel Air V8	2541	244	2785	3839
Rebel, Cus. V8 Sedan, 4d	2256	201	2457	3313	Southampt., 2d Southampt., 4d	4928 5155	385 402	5313 5557	4730 4915	Hardtop, 4d Premiere	4553			4810	Sedan, 2d Sedan, 4d	2270 2320	223 227	2493 2547	3427
H. T. Sedan, 4d Sta. Wagon, 4d	2326 2530	206 221	2532 2751	3328 3418	Sedan, 4d Conv. Coupe	5155 5273	402 411	5557 5684	4755 4820	Hardtop, 2d Sedan, 4d	4894 5124			4820	Sport Coupe Sport Sedan	2326 2386	228	2554 2618	3458
Amb. Sup. V8 Sedan, 4d	2369	218	2587	3456	Le Baron Sedan, 4d	5468	A26	5894	4780	Hardtop, 2d Continental	5124			4880	Ht. Impala, 2d Impal. Conv., 2d	2456 2593	237	2693 2841	3456
Sta. Wagon, 4d Amb. Cus. V8	2643	238	2881	3544	Southampt., 4d	5468	426	5894	4940	Coupe, 2d Sedan, 4d	5367 5597			4865	Sta. Wag., 4d, 6p. Corvette		248 298	2835 3631	3771
Sedan, 4d H. T. Sedan, 4d	2504 2588	228 234	2732 2822	3462 3475	Limousine	14019	981	15000	5960	Hardtop, 4d Convertible	5597 5792			4985 5040	OLDSMOBILE		-		
Sta. Wagon, 4d H. T. St. Wag., 4d	2778 2862	248 254	3026 3116	3568 3586	PLYMOUTH*		***			MERCURY					Series 88 Sedan, 2d	2514			3915
CHRYSLER	COR	Р.			Club Sedan	1943 2026	158 164	2101	3320 3315	Monterey Sedan, 2d	2422	11400		4080	Sedan, 4d Holiday Coupe	2574 2627	****	******	3987
HRYSLER					Sedan, 4d Savoy V8	2074	168	2242	3415	Sedan, 4d Hardtop, 2d	2487 2532 2598			4160 4075 4150	Holiday Sedan Conv. Coupe	2699 2931			4009
Windsor Sedan, 4d Hardtop, 2d	2849 2928	225 231	3074 3159	3895 3860	Sedan, 4d Sport Coupe	2200 2222	178 179	2378 2401	3400 3400	Hardtop, 4d Convertible Montclair	2822			4225	Fiesta Sedan Ht. Fiesta	2990 3093			4240
Hardtop, 4d Twn. & Ctry, 2s	2988 3302	236 259	3224 3561	3915 4155	Sport Sedan Belvedere V8	2288	184	2472	3475	Sedan, 4d Hardtop, 2d	2966 3011			4155 4085	Super 88				
Twn. & Ctry, 3a. Saratoga	3476	272	3748	4245	Club Sedan Sedan, 4d	2278 2325	183 187	2461 2512	3370 3430	Hardtop, 4d Trok. Cruis., 2d	3086 3210	11111		4165 4150	Sedan, 4d Holiday Coupe	2821 2960			3991
Sedan, 4d Hardtop, 2d	3485	273 277	3758 3318	4120 4045	Sport Coupe Sport Sedan	2341	188	2529 2600	3410 3520	Convertible Topk. Cruis., 4d	3244	11111		4295 4230	Holiday Sedan Conv. Coupe	3032 3208			4039
Hardtop, 4d	3613	282	3895	4145	Conv. Coupe Suburban V8	2525	202	2727	3545	Park Lane Hardtop, 2d	3555			4280	Ht. Fiesta	3296		*****	4271
Sedan, 4d Hardtop, 2d	3923 3971	307 311	4230 4282	4195 4205	Deluxe, 2d Deluxe, 4d	2318 2368	186 190	2504 2558	3645 3740	Hardtop, 4d Convertible	. 3626 3788			4390 4405	Series 96 Sedan, 4d	3473			4330
Conv. Coupe	4024 4356	315 340	4339 4696	4240 4350	Custom, 2d Cust., 4d, 6 p.	2431 2481	195 199	2626 2680	3690 3755	Sta. Wagons Comtr., 2d, 6p	2778			4400	Holiday Coupe Holiday Sedan	3655 3726			4280
Twn. & Ctry., 21 Twn. & Ctry., 31		347 362	4803 5018	4445	Cust., 4d, 9 p. Sport., 4d, 6 p.	2611 2623	209 210	2820 2833	3840 3745	Comtr., 4d, 6p. Comtr., 4d, 9p.	2843 2932			4485 4605	Conv. Coupe	3915			4338
Hardtop, 2d	4740	368	5108	4305	Sport., 4d, 9 p. Fury V8	2753	220	2973	3830	Voyager, 2d, 6p. Voyager, 4d, 6p.	3243 3336			4435 4525	PONTIAC Chieftain			0000	200
Conv. Coupe	5740	398	5538	4475	Sport Coupe	2808	224	3032	3510	Col. Pk., 4d, 6p.	3466			4540	Sedan, 2d Sedan, 4d			2335 2396 2460	3640
DE SOTO Firesweep	2503	207	0774	3660	FORD MOT	OR C	0.			GENERAL N	ото	RS C	ORP.		Catal. Coupe Catal. Sed., 4d			2539 2750	365
Sedan, 4d Sportsman, 2d Sportsman, 4d	2567 2633 2692	207 212 216	2774 2845 2908	3660 3720	Ranger Sedan, 2d	2300			3729	Special 40 Sedan, 2d	2388			4063	Safari, 4d, 2s Conv. Coupe Safari, 4d, 3s			2750 2814	4025 3856 4076
Conv. Coupe Sta. Wagon, 2s.	2939 2983	235	3174 3221	3850 3955	Sedan, 4d Hardtop, 2d	2366			3805 3724	Sedan, 4d Hardtop, 2d	2448			4115	Super Chief Sedan, 4d			2578	375
Sta. Wagon, 3s. Firedome	3115	248	3363	3980	Hardtop, 4d	2446		******	3796	Hardtop, 4d Conv. Coupe	2560 2766			4180 4165	Catal. Coupe			2621 2896	369
Sedan, 4d Sportsman, 2d	2810 2896	225 232	3035 3128	3855 3825	Sedan, 4d Hardtop, 2d	2499 2554	11417		3857 3773	Est. Wagon, 4d Ht. E. Wag., 4d	2862 2974	11.61		4396 4408	Star Chief Sedan, 4d			2798	380
Sportsman, 4d Conv. Coupe	2949 3185	236 254	3185 3439	3920 4065	Hardtop, 4d Convertible	2618 2771			3857 3900	Century 60 Sedan, 4d	3007			4241	Catal. Coupe Catal. Sed., 4d			2845 2927	373 385
Fireflite Sedan, 4d	3268	260	3528	3990	Corsair Hardtop, 2d	3066			4134	Hardtop, 2d	3056 3119			4182 4267	Safari, 4d, 2s Banneville	13177	1407	3057	406
Sportsman, 2d . Sportsman, 4d .	3354 3406	266 270	3620 3676	3920 3980	Hardtop, 4d	3139			4235	Ht. E. Wag., 4d	3346 3487			4302 4498	Sport Coupe			3179 3277	3710
Sta. Wagon, 2s.	3630 3684	287 291	3917 3975	4105 4225	Hardtop, 2d Hardtop, 4d	3242 3316			4136 4230	Super 50 Hardtop, 2d	3308			4392	STUDE-PAC	KARD	co	DP.	
Sta. Wagon, 3s. Adventurer	3816	301	4117	4295	Sta. Wagons	3489		*****	4311	Hardtop, 4d Floadmaster 75		10000		4500	PACKARD	1			
Conv. Coupe	3722 3999	294 315		4000 4180	Villager, 4d, 6n.	2630 2683		*****	3761 3827	Hardtop, 2d Hardtop, 4d	4149			4568 4668	Sedan, 4d Hardtop, 2d	2979		3212 3262	3508 3480
DODGE					Villager, 4d, 9p. Bermuda, 4d, 6p	. 2922			3900 3853	Comv. Coupe Limited 700	4263	12411	*****	4676	Sta. Wagon, 4d. Hawk	3092 3660		3384 3995	3560 3470
Coronet 6 Club Sedan	2235	179		3360 3410		. 2975			3919	Hardtop, 2d Hardtop, 4d	4549 4851			4803 4710	STUDEBAKER Scotsman Sedan, 2d	1021	164	1795	286
Sedan, 4d Lancer, 2d Coronet V8	2310	185	2495 2536	3410	Custom V8 Bus. Tudor	1923	156	2079	3283	Conv. Coupe	4663			4691	Sedan, 4d Sta. Wagen, 4d	1631 1705 1872	169	1874 2055	269 273 286
Club Sedan Sedan, 4d	2335 2410	186 192	2521 2602	3505 3555	Tudor Sedan	. 2004 2054	163	2167	3306 3334	CADILLAC Series #2					Champion Sedan, 2d	1996		2189	278
Lancer, 2d Lancer, 4d	2449 2528	195	2644	3540 3805	Fairlane V8	2147	173	2320	3431	Coupe	4375		4784 4891	4630 4675	Sedan, 4d	2056		2253	283
Convertible Royal V8	2693	214		3725		2197 2271	177 182	2374 2453	3483	Ext. Sedan	4650 4810	429	5079 5251	4770 4705	Sedan, 4d	2164		2378 2493	3250
Sedan, 4d	2554 2607	203		3570 3565	Town Victoria.	2332	185	2517	3506	Sedan de Ville	5040	457	5497 5454	4855 4845	Sta. Wagon, 4d	2411		2544	315
Lancer, 4d. Cus. Roy. V8	2564	211	2875	3640	Club Sedan Town Sedan	2289 2339	184 188	2473 2527	3454 3256	Biaeritz	6910	590	7500 7500	5070 4910	Sedan, 4d	2404 2456		2639 2695	332
Sedan, 4d Lancer, 2d	2766 2804	219		3640 3610	Club Victoria	2345	189	2534	3464	Series 60			6232	4930	Hawk	2024		2219	279
Lancer, 4d	2870		3097 3253	3676	Sunliner	2546 2907	203		3630	Series 75	7750		8460		Silver, 8 cyl	2139	213	2352 3282	314

Prices of 6 cyl. models are \$137 less than 8 cyl. models for the Custom; \$124 for the Fairlanes and \$107 for the Station Wagons.

<sup>\*</sup> Prices of 8 cyl. models are \$100 less than 8 cyl. models.

## FUEL AND COOLING SYSTEMS

	- Hose	er By-Pass	Inside Diameter Mumber and Type and Type Diende	ZZZZ ZSSS	184 1 Mo 18	13.7 1 Mo	ZZZ SSS	ZZZ:	27,7,7,7 M M M M M M M M M M M M M M M M M M M		3888		<i>ZZZZZ</i> SSSSS	ZZZ ZZZ	******	mesh screen and felted PP—Plasticized paper. in manifold cross-over. d cramic. Str.—Strainer. Str.—Strainer. TC.—Tube and center. fn.
-	Radiator Hose	Upper	Diameter Number and Type	2222 8888	1 Mo	222 888	288 388	222 222	28282	WWWW WWWW	~	- SAS	28888	MW I Wo	ZZZZZZ	Plastic mesh service fiber: Plastic. PP - Plastic. Plastic. PP - Plastic. Rechester. SB - Server and ceramic. Server and ceramic. Structural fibrical fibric
		Lower	odwale eqyT bas	WWW.	Mo T	I Mo	MW W	MW W W W W W W W W W W W W W W W W W W	WWW.	1 M0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Mo 22 2		2000 2000 2000 2000 2000 2000 2000 200	1 Mo 2	2000000 2000000	
1		ste	Full Length Water Jack Water All A Cylinder	>>>>	>>		ZZZ	>>>	*>Z>>	>>>>> >>>>>	××××	- 22>	****	>>>	>>Z>>>	ded. ath. opal. wetted. t.
	Capacity		With Heater Without Heater (qL)	12.0 11.0 11.0 10.0 21.0 20.0 20.0 19.0	22.0 21.0	24.	16.	28.83	*	20000	2888	0 0 0 0	22228	22.3 21.0 22.3 21.3	18.5 17. 18.5 17. 18.5 17.	le - Mol - No or pt - Opti W - Oil mie. d magne
-	_		Type Radiator Co	***	20	4 4 4 0 0 0					EE 33			555	555555	GB - Glass bowl. Hol-Holley. In-Internal. Int-Integral. Man-Manual. PC-Plett. PC-Plastic and cr PC-Plastic and cr PC-Plastic for an Pr PP-Plastic fiber an
-	Thermostat	1	Starts to Open at De	177 N 167 N 167 In	157 In	157 In 157 In		157 157 167 167	26666		77 162 162 163 163 163 163 163 163 163 163 163 163			72071	071	GB - G Hol- Int Int - Int Man - Pell PC - Pell
-	-	p Relief ure (b.)	Radiator Ca Valve Press Type	5555	4 4	222	444	<u> </u>	11111	133 CC CC 133 CC CC 133 CC C	23.25 23.25 25 25 25 25 25 25 25 25 25 25 25 25 2		1335 1335 1375 1375 1375 1375 1375 1375	1315 Ch 1315 Ch	555555	_3 & CBE.
		Air Cleaner Type	Standard	CFE OR			222		SSSS	80	ZZZ	2 2 2 2	≥ m ≥ W	W PE	8 8 8 8 N	Roc Stro
-		-	Сноке Тур	Aut Aut	111	0			Aut PP P	Aut DDDD Aut DDDDDDDDDDDDDDDDDDDDDDDDDDD	4444 4444	in in in	Aut Aut Aut Aut	Aut	Aut Aut Aut Aut Aut Aut P P P P P P P P P P P P P P P P P P P	Ball and Carburet Carter. Cellular Cellulos hoke. Carter o
-	etor	(lnl)	Barrel Size	1.4375	1.4400	1,4400	1.5600	1.4400	1.6900	1.5000 1.5000 1.5625 1.4375	1.5625 1.2500° 1.4370			1.9625 <sup>13</sup> 1.6880 1.4380 <sup>14</sup>	1, 1250 1, 1250 1, 1250 1, 1250 1, 1250	-on
	Carburetor	na	Number Use	S88 88	Da	223	1088	200	28828	22	2	Du FB	2887870	202	Se de la companya de	Champion, a nampion, 12.5. 6-117-B. lement.
		ре	Number	YF-2014-S AS-2749-S 4150-C	BBD-2733-S AFB-2650-S	WCFB-2741-S 1 2 8BD-2637-S 1	AFB-2642-S AFB-2652-S	WW3-159 WW3-163 WCFB-2660-S	AFB-2651-S BBS-2567-S BBS-2644-S4 WCFB-2631-S5		4150	WGD7	AFB <sup>8</sup> 7012127 7012451 3746384	4GC 7011703 AFB-2751-S	2575-S WW6-122-A BBR1-2724-S15 1 WW6-117-B WW6-172-A	Scotsman only; matic. Scotsman only; Cl silver Hawk, Stro silver Hawk, WW Ascreted floor. Actred floor. Automatic
-			Make	Cart	BB	Cart	Cart Cart	Str	Cart BB B-S		01110			Roc Cart	Cart Str Str Str	AFE AFE
	Fuel Pump	19120	Pressure Mange (lb.)	4 5 5 2 Std 4 5 5 2 Std 4 5 5 2 Std 4 5 5 2 Std		h-h-			EZZZZ	00000		222	Market Mark	5-6 Std 1-61-5 Std	33.5 55.5 55.5 55.5 55.5 55.5 55.5 55.5	1.6700. Roch 1.6873 1.6880
-		(*)#	Fuel Filter	POW Cest	200	555	555	1 0 0 E	20000	日本文章	K W P A	800	Scr Sth AS	P P P	2000000	
			Induction T Fuel Tank	2222	Car 23			2888	sssss EEEE	22222	erer:		82888 55555	222	333333	9—Primary oaly; second 19—Carter only; Ro Eldorado mod 25CWGD. 11—Eldorado models, 3, 11—Eldorado models, 4, 13—Primary only; secon
1		PASSENGER CAR MAKE AND MODEL		DRS CORP. 6-5801 6-5810 8-5830 8-5890			8-LS2 8-LS2-H 8-LS3-S		Plymouth 8-LP3 (PLP) (Plymouth 8-LP3 (PLP)				8-75 6-1100, 1500, 1700 8-1200, 1800, 1800 8-86.	Pontiac 8-Chieffan, Super Chief 6-Star Chief 6-Star Chief, Bonneville 6-Think Bonneville		ABBREVIATIONS 9—Prin  1—Front only; rear, WCFB-2553-8.  2—Front only; rear, AFB-2553-8.  3—Prinary only; renoulary, 1,0960-1.  4—Ball and Ball only; Stronberg, 12—Ell  WWI-5-0.  5—Front only; rear, WCFB-2552-8.  13—Ell  —Front only; rear, WCFB-2552-8.  13—Ell  —Front only; rear, WCFB-2552-8.  13—Ell  —Front only; rear, WCFB-2552-8.  —Front only; rear, WCFB-2552



### "But, young man, you distinctly told me I'd get better gas mileage!"

Actually, your customers get only partial relief from their gas burning problems when you try to repair their wornout carburetors. For permanent satisfaction, don't rebuild the old unit, replace it with a new, modern Stromberg\* Carburetor.

Installation is simple, the profit is right and your cus-

tomers are happy because they will get the improved performance which only a new Stromberg can give.

Discover this *modern* way to handle an *old* service problem. Ask your Stromberg Distributor for information and a "Starter Stock" today. You will be glad you did.

BENDIX PRODUCTS SOUTH BEND, IND. \*REG. U. S. PAT. OFF.

### **NEW STROMBERG REPLACEMENT CARBURETORS**

## FAN, BATTERY, AND ELECTRICAL SUPPLY SYSTEM

		onditions	Other		8888888888	N	S ZZZ	35007
		Voltage Test Conditions	Load	10 amp 10 amp 10 amp	7 amp 7 amp 7 amp 7 amp 7 amp 7 amp 7 amp 7 amp 7 amp		10 amp 8-10 amp 8-10 amp 1-10 amp 10 amp	10 amp 10 amp 110 amp 10 amp
		Voltag	Tempera- ture (deg.)	III	70F 70F 70F 70F 70F	755 7755 7755 7755 7755	125F 00T 80F 125F	25555
		P	Surrent	228	2222222222	12222222 2282323	38 42 32 37 42 45 27 33 27 33 35 30	888888
		Regulated	Voltage	4 7 4 10 10 10	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	44444444	4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	Regulator		Current to Open (amp.)	<b>666</b>	444444444	24444444	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 5 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
EM	Reg	Relay	Reverse		000000000000000000000000000000000000000	8888888	-00 0	1250 1250 1250 1250 1250
ELECTRICAL SUPPLY SYSTEM		Cut-out	Closing Voltage at Generator R.P.M.	12.8-1300 12.8-1300 12.8-1300	13.0 13.8 13.1 13.0 13.8 13.0 13.8 13.0 13.8 13.0 13.8 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0	12.4.13.2.1150 12.4.13.2.1250 12.4.13.2.1250 12.4.13.2.1250 12.4.13.2.1350 12.0.12.8.1350 12.0.12.8.1350	11.8-13.6 1450 11.8-13.5 1300 11.8-13.5-1300 11.8-13.5-1300 11.8-13.6-1235 11.8-13.6-1235	13.0 13.7 12 13.0 13.7 12 13.0 13.7 12 13.0 13.7 12 13.0 13.7 12
AL SI			Type	555	666666666		2 22223	222223
ELECTRIC			Model	1119122 1119122 1119003	V RX-6201-A V RX-6201-A V RX-6201-A V RX-6201-A V RX-6201-A V RX-6201-A V RX-6201-A V RX-6201-A	FAP-10503-B 29004246 29004246 29004246 29004246 2900423	11196.00 11190.02 11190.01 11190.01 11190.02 11190.02	1119123 1119123 VRX-6008A 1119123 1119123
			Make	08 08 08	*****	22777277	0000000	98488 98488
			Cut-in- Engine RPM	570 480 485	600 600 600 650 650 650 650 650 650 650	550 620 675 600 600 625 2450 2700	514 1100 1450 1240 1250 1250 515 500	570 570 570 570
		(L-	Hatio Gen I	2.34	22.22.22.22.22.22.22.22.22.22.22.22.22.	2.25 2.25 2.25 2.25 2.25 2.25 2.25 2.25	22.30	22.19
	Generator		Type	555	555555555	555555555	5255555	555555
	Gene		Model	1100304 1100304 1102018	GJC-7012-A GJC-7013-B GJC-7013-B GJC-7012-A GJC-7012-A GJC-7012-A GJC-7012-A GJC-7012-A	FAS-10000-8 FGV-10000-A FAS-10000-B FAS-10000-E FBW-10000-C FGV-10000-A	102101 102103 102096 102096 102097 102093	1102003 1102003 G.JC-7002F 1102003 1102003
			Make	00 B	****	22222222	00000000	200kpg
			Terminal Grounded	222		N N N N N N N N N N N N N N N N N N N	NENNNNN	NNNN
		Butter	Plates per Ce Amp. Hour B	7 45 9 50 12 60	25 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	53252555	555555555555555555555555555555555555555	888888
ERY		61	Voitage RatioV	122	2222222222	22222222	2222222	222222
BATTERY		Model		11-MS-45 11-HS-60	A-W 11-HS-601 A-W 12-H-702 A-W 12-H-703 A-W 11-HS-601 A-W 11-HS-603 A-W 11-HS-603 A-W 11-HS-603 A-W 11-HS-603 A-W 11-HS-603 A-W 11-HS-603 A-W 11-HS-603		2-SMR53-W 2-SMR53-W 3-KMR70 458	HO-11-50 HO-11-50 HO-11-50
			Make	222	A-W-W-W-W-W-W-W-W-W-W-W-W-W-W-W-W-W-W-W	V V V V V V V V V V V V V V V V V V V	00000000	33333
		(	Bearing Type	222	22222222	20222222	5×255556	22222
			Cutout Type	222	SSISSSSSSS	22222222	ZZZZZZZZ	ZZZZZZ
-		"AI	Ratio-Fan to Crankshaft re	2,2,2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	7758888888	24.26.26.26.26.26.26.26.26.26.26.26.26.26.	6,6,2,6,6
FAN		(	Diameter (in	2 × ×	222212222	2222222	173	282128
		(*	Spacing (deg		76, 104 76, 104 76, 104 76, 104 775, 80 776, 104 76, 104	78, 104	76, 104 76, 104 76, 104 78, 104	8, 8,8,8,8 10,000,000,000,000,000,000,000,000,000,
		sope	8 te sedmuM	444	0004444644		*******	404444
		PASSENGER CAR MAKE AND		AMERICAN MOTORS CORP.  Rambler 6-5801, 5810 8-5820 8-5830	CHRYSLER CORP.  Chryster.  8-LC3-K B-LC3-K B-LC3-K B-LC3-K B-LC3-K B-LD3-K B-LD3-K B-LD3-K B-LD4-K B-LC4-K B-LC4-K B-LC4-K B-LC4-K B-LC3-K B-L	Edtel MOTOR CO. Ranger, Pacer Edtel 8-Ranger, Pacer 8-Corasir, Citation Ferd 8-Cartam 300 8-Fairlane, Fairlane 500 8-Fairlane, Fairlane 5441 Mercury 8-Montcair, Park Lare	GENERAL MOTORS CORP.  Buick 8-40, 60, 56, 70, 700 Cadillac 8-73, 700 Cherviet 6-1100, 1500, 1700 Cherviet 8-1200, 1800, 1800 Oldsmobile 8-88, 88, 88 Pontiac 8-88-25, 58-77, 58-72	STUDEBAKER-PACKARD CORP. Packard B-58L Hawk Studebaker B-58G B-58G B-58G B-58G

ABBREVIATIONS

1—Auto-Lite only; Willard, HO-11-60. 2—Auto-Lite only; Willard, HO-12-70. 3—Auto-Lite only; Willard, HO-11-50; Gould, 11-OE-53.

Auto-Like and Wilhard only; Gould, 9-53.
 Auto-Like only; Wilhard, HC-11-50.
 Fred only, American Roses, 2700015.
 Revelations per minute.
 Q. 65, 65, 82.

45, 923-6, 65, 65, 924-6.
 AL Auto-Lite.
 AW—Auto-Lite or Willard.
 AW—Auto-Lite or Willard.
 Ba Ball.

BC—Battery in circuit.
CR—Cycle regulator.
CV—Current and voltage control.
DR—Deck-ckeruy.
F—Degrees fathersheit.
F-A—Ford or American-Bosch.

Fo Fred. H-Hot. Hyd-Hydraulie. N-None. Neg - Negative. OT - Operating temperature.

80—Rated output. Sh.—Shunt. TP—Two pole. Var—Various. Wil—Willard.

# SET IT FROM BLUE STREAK BATTERY CABLES & IGNITION WIRE SETS

for complete listing write for Battery Cable Wall Chart No. F605



Engine

Switch Starter A18-1L B9G

A32-1L A32-1L

A32-1L

A18-11 A18-11 A18-11 A24-4L A24-4L

CAR. YEARS AND MODELS	Battery 10 Switch	Battery te Ground	Switch to Starter	Engine to Ground	CAR VEARS AND MODELS	Battery	Battery	Switch	Engine to Ground	CAR VEARS AND MODES	Battery	Battery
BUICK					HUDSON (Rambler See Nash)				2	NASH & RAMBLER Cont.	281100	2
48 B.All. 99.58 '49.52 All. '53 40 54.56 B.All. 58 B.All. 58 B.All.	A12.1 A16.1 A12.1 A19.1 A12.1	M	A32-1L A32-1L	B9G B9G	51-53 6-All enc. Wasp & Jet 52-28 8-All 52-53 6-Wasp 53 6-Jet, Super Jet 54 6-Wasp, Hornet 54 6-Jet	A A A 22-1 A A 12-1 A 12-1 A 16-1	1111111111	A32-11. A32-11. A32-11. A18-11. A18-11.	B B B B B B B B B B B B B B B B B B B	54 6-Rambler Std. Trans. 55 6-States. Auto. Trans. 55 6-Rambler, States. Std. Trans. 55,86-Rambler 56 6-Statesman. 57 6-Rambler	A16-1 A36-1 A30-1 A28-1 A37-1	A16-1 A16-1 A16-1 A23-1 A23-1
CADILLAC					55 6-Wasp. 55 6-Hernet	A16.1	B17			57-58 8-Rambler 58 6-American	A53-1 A28-1	A2 A1
48 8-All 49 8-All 50-52 8-All 54-55 8-All 54-55 8-All	A12-1 A12-1 A28-1 A37-1 A23-1	B11 B171 A30-12 A30-12 B253		89.5 812.6 89.6 89.6 89.6	55 8-Harnet 56 6-Wasp 56 6-Harnet 56 8-Hornet 57 8-Harnet	A42-1 A23-1 A23-1 A37-1 A58-1	814 A30-1 A23-1 A23-1	A18-1L A18-1L		58 E-Ambassador. OLDSMOBILE 41-48 6 48 8-All 49 6-All	A58-1 A16-1 A28-1	24 24
56 8-All 57 8-All 58 8-All	A47-14 A47-14 A59-4P	B25		B9G	S	A15-4	A20-67	A24-4L	BIZG	50 6-All 50-52 8-All	A28-1 A37-1	817
CHEVROLET		B17			D. D.	9-02V	A20-6 A15-4	AZ4-4L	9126	54 8-All 55-57 8-All	A16-1 A15-49	822 822 822
49-54 G-AII 55-56 G-AII	A42-1 A30-6	B14 B8C			41-476-Thra "G" Eng.	A30-1	1.61A	A18-1L	968	PACKARD	A15-4	AZ
55-56 8-35 All; '56 w o Air Cend. 56 - 8-All w Air Cend. 57 8-All w/o Air Cend. 57 8-All w/o Air Cend.	A42-6 A42-6 A32-6S A38-6S A38-6S	B8C B253 A22-4 A22-4 A32-655		B9G3	42.48 8.4 H. Eng. 47.48 6. "H" Eng. 49.51 6. & 8.4 H. Ford 52.53 6. & 8.4 H. 52.53 6. & 8.4 H.	A16-1 A16-1 A16-1 A16-1	87 817 825 817 A23-1	A18-1L A49-1L A18-1L A18-1L	568 568 568	46-50 8-All exc. Custom 46-50 8-Custom 51-54 8-All 55 8-All 56 8-All	A23-1 A19-1 A37-1 A42-1	A28-1 A28-1 B25 B20 B17
CHRYSLER					55 6.All	A16-1	A19-1	A32-1L	B12G	57-58 8-All	A15-4	A 19
(0.50 G.A.) 51.22 G.B.A.) 53.24 G.B.A.) 53.34 G.B.A.) 53.34 A.) V. Torque Corv. 53.34 G.A.) V. Torque Corv. 53.34 G.A.) 53.44 A.) V. Torque Corv. 53.45 G.A.) 53.45 G.A.)	A28-1 A30-1 A37-1 A16-1 A37-1 A42-1	B17 B17 A19-1 B20 A19-1 A19-1 A19-1	A32-1L A32-1L A32-1L A32-1L		25 6-Mil. 8-w. o Air Cend. 26 8-Mil. 8-w o Air Cend. 27 6-Mil. 8-w o Air Cend. 27 6-Mil. 8-w o Air Cend. 28 6-Mil st. vo Air Cend. 28 8-Mil exc. T'bird.	A15-48 A15-48 A15-4 A15-4	A23-1 A22-4 A20-6 A38-6S3 A20-6 A20-67	A22-11. A24-61. A24-61. A24-61. A24-61. A24-61.	812C 812C 812C 812C 812C 812C	PLYMOUTH 46-18-All 46-18-All 52-54-All 55-6-48-All 56-57-6-48-All 58-6-48-All	A16-1 A16-1 A16-1 A12-1 A15-46 A19-4	A23-1 A16-1 A19-1 A19-4 A19-4
DE SOTO	1416-05-0		ALL DE CASE		IIV-	A16-1 A23-1	817	A32-1L		39-48 6 & 8-All 69 68 6-All	A16-1 A28-1	98
64-48 6-All 64-56 6-All (seary '53) 55-56 6-All (seary '53) 55-56 6-All (sea '53) 56-8-All (sea '54-All '56 Firedome, 'file	A37-1 A28-1 A30-1 A37-1 A42-1 A40-4M	A23-1 A16-1 A19-1 A19-1 A19-1	A18-1L A32-1L A32-1L			A16-1 A23-1 A19-4 A19-4 A15-4	814 A19-1 A30-1 A42-1 A32-6S5 A20-6	A18-11 A18-11 A24-4L	B12G B12G B12G B12G	50-54 6-All 50-54 6-All 50-58 8-All 56-57 8-All 56-57 8-All 58 8-Sed Tree.	A23-1 A28-1 A23-1 A47-4J A36-4P	B17 B14 B14 B22E B22E A23-1
DODGE		A19-4	78-4F	******	49-50 6-600, States.	A37-1	A19.1	AIB-IL	B12G	41-46 6-Champion	A16-1	282
7777734 7777734 888888	A16-1 A16-1 A16-1 A16-1 A16-1	A23-1 BB7 A16-1 A16-1 A19-1 A19-1	A18-11. A18-11. A18-11. A18-11. A24-41.		1 6 Kambler 6 6 States Auto Trans. 6 5 5 6 States Auto Trans. 6 5 5 6 Kambler 6 5 5 5 6 Kambler 7 5 5 5 6 Kambler 6 5 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5	A28-1 A53-1 A28-1 A37-1 A22-1 A23-1	A37.1 A16.1 A16.1 A16.1	A18-11 A18-11 A18-11	B12G	47-48 for Champion 51 for Champion 52 for Champion 52 for Hardes & Coupe 53-56 for Hardes & Coupe 54 for Hardes & Coupe 55 for Hardes & Coupe 55 for Hardes & Coupe 6-50 for Hardes & Coupe 6-50 for Hardes & Coupe 6-50 for Hardes & Coupe	A28-1 A28-1	B17 B17 A23-1 B17 B25 B17

A Replace 12 gauge wire with 18 inches of C12E. Attach SSTA4 terminal to one end & SSTA5 terminal to the other end and attach under battory terminal mut.

3 B25 & B9G must be used to-gether to replace original strap found on car.

2 A30-1 & B9G must be used to-gether to replace original strap found on car.

Dec

Bec

A18-1L

Bec

B17 & B12G must be used to-gether to replace original strap found on car.

<sup>8</sup> Remove 12 gauge wire & discard for this application. 6 A20-4K may also be used for 1956 applications only. 7 With Air Suspension use A30-6.

<sup>8</sup> A15-4N may also be used for 1956 applications only.
9 A14-4 may also be used for 1955-56 applications only.

## STARTING AND IGNITION SYSTEMS



# **BLUE STREAK IGNITION**

Heavy duty trune up parts

for complete listing write for IGNITION WALL CHART F597

STANDARD MOTOR PRODUCTS, INC. 37-18 Northern Blvd., L. I. City 1, N.Y.

PASSENGER CAR YEAR AND MODELS	Blue Streak Point Set	Distrib- utor Head	Rotor	Blue Streak Con- denser	Ignition Gell	Blue Streak Voltage Reg.	Pi	ASSENGER CAR YEAR AND MODELS	Blue Streek Point Set	Distrib- utor Head	Rotor	Blue Streak Con- denser	ignition Coil	Streak Voltage Reg.
BUICK						-	HU	DSON-(Cont.	)					
52-53 8-1952, All; 1953, 40 53 8-12 V., Se, 70 54-56 8-12 V., All	DR-2236X DR-2437X DR-2437X DR-2234X	DR-196 DR-427 DR-427 DR-429	DR-307 DR-306 DR-306 DR-311	UDR-3X UDR-3X UDR-7X	UC-500R & DR-2X DR-2X DR-4X	VR-347X VR-410X VR-410X VR-416X	56 56 56 57	6-12 V. All 8-12 V. Wasp 8-12 V. Hor 8-12 V. Hor	AL-4652X DR-2236X AL-5677X§ DR-2236X	AL-133 DR-427 AL-131 DR-429	AL-152 DR-306 AL-99 DR-310	AL-115X UDR-3X AL-116 UDR-7X	UC-506-12 o DR-2X AL-4KX DR-2X	VR-415X VR-411X VR-415X VR-410X
58 8-12 V., All	DR-2236X	DR-429	DR-311	UDR-7X	DR-4X	VR-420X1	LI	NCOLN						
CADILLAC							52-	S4 8-All exc. Cont.	FD-8182XV7 FD-8182XV7	FD-125 FD-125	FD-105 FD-105	FD-75X FD-75X	FD-476X FD-476X	VR-361X VR-362X
53-55 8-12 V., All 56 8-12 V., All 57-58 8-12 V., All	DR-2236X DR-2238X DR-2238X			UDR-3X UDR-7X UDR-7X	DR-2X DR-2X DR-2X	VR-410X VR-410X VR-416X <sub>1</sub>	56	6-12 V. All	FD-8183XV	FD-125 FD-129	FD-105 FD-106	FD-75X FD-76X	FD-471X FD-471X	VR-414X VR-419X
CHEVROLET							MI	ERCURY						
49-52 6-All 53 6-All 54 6-All 55-56 6-12 V., All	DR-1827X DR-2227X DR-2227X DR-2227X	DR-413 DR-428 DR-428 DR-428	DR-158 DR-308 DR-306 DR-308	UDR-3X UDR-3X UDR-6X UDR-6X	UC-SOOR 会 UC-SOOR 会 UC-SOOR 会 DR-2X	VR-341X <sub>2</sub> VR-347X VR-347X	54-1 56	53 8-All 55 8-All 8-12 V. All 58 8-12 V. All	FD-8081XV7 FD-8182XV7 FD-8182XV7 FD-8183XV	FD-125 FD-125 FD-125 FD-129	FD-105 FD-105 FD-106	FD-74X FD-75X FD-75X FD-76X	FD-470X FD-470X FD-471X FD-471X	VR-360X VR-361X VR-414X VR-414X
55-56 8-12 V., All 57-58 6-12 V., All 57-58 8-12 V., All	DR-2227X DR-2227X DR-2227X	DR-427 DR-428 DR-429	DR-309 DR-308	UDR-3X UDR-6X UDR-7X	DR-2X DR-2X DR-3X	VR-411X <sub>3</sub> VR-411X <sub>3</sub> VR-411X		SH (And Ram						
CHRYSLER	AL-4652X	AL-133	AL-151	AL-111X	UC-SOOR *	VR-410X4	54- 54 55	53 6-States., Ram. 55 6-Rambler 6-Statesman 6-Statesman	DR-1827X DR-1827X DR-1827X DR-2227X	DR-413 DR-413 DR-413 DR-428	DR-158 DR-158	UDR-3X UDR-3X UDR-3X UDR-6X	UC-500R会 UC-500R会 UC-500R会 UC-500R会	VR-348X VR-342X VR-348X VR-348X
53-54 8-C56, 63 54 8-C64 55 8-Winds., N.Y.	AL-5055X-2 AL-5055X-2 AL-5055X-2	AL-131 AL-131 AL-131	AL-99 AL-99 AL-99	AL-113X AL-113X AL-113X	UC-SOOR # UC-SOOR # UC-SOOR #	VR-324X VR-326X6 VR-324X	56	\$8 6-12 V. Ramb., States. 8-12 V. States.	DR-2236X	DR-428 DR-427		UDR-3X UDR-3X	DR-2X DR-2X	VR-411X VR-411X
56 8-12 V. 57 8-12 V. Winds.,	AL-5255X	AL-135	AL-153	AL-113X	AL-4KX	VR-415X	57-	\$8 8-12 V. Ramb., Amb.	DR-2238X	DR-429	DR-310	UDR-7X	DR-2X	VR-411X
Saratoga 57 8-12 V. N. Y.,	AL-5384X	AL-135	AL-153	AL-115X	AL-4KX	VR-415X	01	DSMOBILE						
58 8-12 V. Wind.,	AL-5255X§	AL-135	AL-153	AL-113X	AL-4KX	VR-415X	51	8-AII	DR-2236X	DR-427	DR-306	IUDR-3X	UC-500R☆	VR-340X
Saratoga 58 8-12 V. N. Y., Imp.	AL-5284X AL-5255X5	AL-135 AL-135	AL-153 AL-153	AL-118X	AL-4KX	VR-415X VR-415X	52 53- 56	8-AII 55 8-12 V. AII	DR-2236X DR-2236X DR-2238X	DR-427 DR-427 DR-429	DR-306 DR-306 <sub>1</sub> DR-311	UDR-3X	UC-500R☆ DR-2X DR-2X	VR-347X VR-410X VR-410X
	AL-3633A	AL-100	AE-133	AE-110A	AL-4RA	4M-413A	57 58	8-12 V. All 8-12 V. All	DR-2238X DR-2238X	DR-429 DR-429	DR-311 DR-311		DR-2X DR-2X	VR-416X VR-416X
DE SOTO							30	0-10 V. All	DR-2230A	Port-463	Ing-arr	DUR. IA	DK-6A	110-1100
50-54 6, IAT Dist. 52-55 8-All 56 8-12 V. All 57 8-12 V. All 58 8-12 V. All	AL-4652X AL-5055X-2 AL-5255X AL-5384X AL-5486X	AL-133 AL-131 AL-135 AL-135 AL-135	AL-151 AL-99 AL-153 AL-153 AL-153	AL-111X AL-113X AL-115X AL-117X	UC-500R ★ UC-500R ★ AL-4KX AL-4KX AL-4KX	VR-324X VR-324X VR-415X VR-415X VR-415X	54 54 55	8-All D.R 8-All A.L 8-12 V. Custom	DR-2236X AL-4350X	DR-427 AL-97	DR-306 AL-99	UDR-3X AL-103X	UC-500R☆ UC-500R★	VR-348X VR-323X
	AL-3109A	AL-133	AL-133	AL-IIIA	AL-4RA	4K-413V	55	Clipper 8-12 V. Clip.,	DR-2236X	DR-427	DR-386	UDR-3X	DR-2X	VR-412X
DODGE 50-53 6, IAT Dist	AL-46S2X	AL-133	AL-151	AL-111X	UC-SOOR #	VR-324X	56-	Sup., Del 58 8-12 V. D.R	AL-5677X DR-2236X	AL-131 DR-427	AL-99 DR-366	AL-116 UDR-3X	AL-4KX DR-2X	VR-410X
53-55 8-All 54-55 6-All 56 6-12 V. All	AL-5055X-2 AL-4652X AL-4652X	AL-131 AL-133 AL-133	AL-151 AL-151	AL-111X AL-111X	UC-500R ★ UC-500R ★ UC-500-12 €	VR-415X	56	8-12 V. Clip., Cust. Clip	AL-5677X	AL-131	AL-99	AL-116	AL-4KX	VR-415X
56 8-12 V. All 57-58 6-12 V. All 57 8-12 V. All	AL-5255X AL-4652X AL-5384X	AL-135 AL-133 AL-135	AL-153 AL-151 AL-153	AL-113X AL-115X AL-115X	AL-4KX AL-SJ AL-4KX	VR-415X VR-415X VR-415X	50-	S2 6, IAT Dist	AL-4652X	AL-133	AL-151	AL-111X	UC-SOOR *	VR-324X
58 8-12 V. Coronot Royal 58 8-12 V. Cust.	AL-5384X	AL-135	AL-153	AL-118X	AL-4KX	VR-415X	55 56	\$5 6-All	AL-4652X	AL-131 AL-131 AL-133	AL-151 AL-99 AL-151	AL-111X AL-113X AL-111X	UC-500R ★ UC-500R ★ UC-500-12 €	VR-324X VR-415X
Roy.,Sta. Wag	. AL-5486X	AL-135	AL-153	AL-117X	AL-4KX	VR-415X	56 57- 57	8-12 V. All 58 6-12 V. All 8-12 V. All	AL-5255X AL-4652X AL-5384X	AL-135 AL-135	AL-153 AL-151 AL-153	AL-113X AL-115X AL-115X	AL-4KX AL-5J AL-4KX	VR-415X VR-415X VR-415X
58 8-12 V. All	FD-8183XV	FD-129	FD-106	FD-76X	FD-471X	VR-414Xa	58	8-12 V. All	AL-5384X	AL-135	AL-153	AL-118X	AL-4KX	VR-415X
	T D-0100AY	1. 10. 143	110-100	10.10%	I D-111A	( en-array	PC	ONTIAC						
FORD 49-55 6-All	FD-MAIXV-	FD-124	FD-105	FD-74X	FD-470X	VR-360X	52-	53 6-Ali	DR-1836X DR-2236X	DR-413 DR-196	DR-158 DR-142		UC-SOOR 会 UC-SOOR 会	VR-347X
49-53 8-AII 54-55 8-AII 56-58 6-12 V. AII 56 8-12 V. AII	FD-8081XV; FD-8182XV; FD-8081XV; FD-8182XV;	FD-125 FD-124 FD-125	FD-105 FD-105 FD-105 FD-105	FD-74X FD-75X FD-74X FD-75X	FD-470X FD-476X FD-471X FD-471X	VR-360Xs VR-360Xs VR-414X VR-414X	54	6-All -56 8-12 V. All 8-12 V. All	DR-2236X DR-2236X DR-2238X DR-2238X	DR-428 DR-427 DR-429 DR-429	DR-308 DR-309 DR-311	UDR-1X UDR-3X UDR-7X	UC-500R & DR-2X DR-2X DR-2X	VR-3473 VR-4113 VR-4113 VR-4103
57-58 8-12 V. All	FD-8183XV	FD-129	FD-106	FD-76X	FD-471X	VR-414X	51	UDEBAKER						
HUDSON (Rambi	AL-4652X	AL-133	AL-152	AL-111X	UC-500R ★		51- 55	54 6-Champ 6-Champ	AL-5657X AL-5657X	AL-133 AL-133	AL-151 AL-151	AL-110X AL-117X	UC-500R *	VR-324X
55 6-Wasp, Horn 55 8-Hornet	AL-4652X AL-5677X§	AL-133 AL-131	AL-152 AL-99	AL-115X AL-116	UC-500R★ UC-500R★	VR-324X VR-324X	56 57-	6-12 V. Champ. -58 6-12 V. All	AL-5657X AL-5657X	AL-133 AL-133	AL-151 AL-151	AL-117X AL-117X	UC-500-12 o AL-5J	VR-415X

- NOTES

  'The "Standard" equivalent is ... DR-1R

  'The "Standard" equivalent is ... AL-3J

  'The "Standard" equivalent is ... UC-380-12 or AL-5J

  Two used.

  1 Except with Air Cond.

  2 1852 use VR-340X.

- 2 Power Steering and Air Cond. use VR-410X.
  4 35 Amp. Gens. use VR-416X.
  5 AL-112 Can also be used.
  6 Except Power Steering.
  7 Blue Streak Solid Point Set, use FD-8081X or FD-8182X as required.

- 3 40 Amp. Gens. use VR-361X. 9 Models A, B only. 10 Rambier use VR-342X. 11 Dist. 1110850 use DR-309. 12 Gen. 1102770, 1, 4, 5 use VR-347X. 12 With Air Cend. use VR-420X.

# IGNITION TIMING, SPARK PLUGS, AND CLUTCHES

	Buju	Torsional Dampe Method	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	cs	SSS	888	888	3	8888	Spr	Ser	FE	SS	SSW SSW SSW	s vibra-
	Release Bearing	Method of Lubrication	2222	n.	0.0	0.0.0		0.		0.	0.				s. spring
	Bear	Type	2555	B	55	666	664	8	2222	3	5	22	55 5	222222	wathers
	po	Engagement Cushioning Meth	5555	Cfs	55	555	555	TOS	108 108 108	MOB	Sper	Page 1	Feb.	555555	steel 1 er. d disc mper. n dam regulat asbeste
		Thickness (In.)	128 128 128	.125	128	128	22.52	.128	221.22	125	.128	22	386 128	25 25 25 25 25 25 25 25 25 25 25 25 25 2	Springs, steel washers.  Top center.  Top center, since with a tion damper.  Vibration damper.  Woven asbestos.  When modded.
		Effective Area (Sq. In.)	55.2 72.2 80.1	100.5	123.4	77.8			85.2	114.3	113.0		88 8	107.0 100.0 100.0 107.0	Sew TC_T TDS VB VR
	Facing	Outside Diam, (In.)	10.08	10.0	11.0	600			8000		1.0	80	100	00.000	plate
		Inside Diam. (In.)	8-0-6-8 4-0-0-0	6.0	800	004		7.0	1786		7.0		7.0	****	rings. offset driven plate
		Material		MWA	MWA	MWM	MWW	WA	WAAA	WA	We	M-W M-W	WM	MANAMA	A
-		Munsber of Driven Discs		_				-		-	-				rifuga rifuga retion at hu lugs.
	e.in	seary staly lateT	1215 1446 1444 1883	2013	2349	1206	1345	1710	1230 1278 1575	2016	1845	1413	1934	1734 2064 1368 1594 1734 2064	Plate cushion springs. Right. Semi-centritugal. Sepring action of offace spokes. Springs at buth. Springs at buth. Springs. Springs.
		Type Pressure springs	<b>ತಿಕಿಕಿಕಿ</b>	Co	ిపి	333	3333	3	ಪಿಪಿಪಿಪಿ		3	Ola	35 3	<b>ವಿಪಿಪಿಪಿಪಿ</b>	SA SA SA
		Type	0000	0	: 00	000	000	00	0	0	0	Os	00	000000	
		Маке	8888	88	88 N N	Z Z 8 8 8	2 E 9 E	2:	2222	2 W 2	. 3	Own Own	g×c8	0000000	ings.
		Suppression Type	HT Dis Dis	SP,Dis	SPO PS	988888 0,9889 0,099 0,099 0,099	8 S S S S S S S S S S S S S S S S S S S		Gen, VR, Wh, HT Gen, VR, Wh, HT Gen, VR, Wh, HT	VR,Wh,HT,Gen	HT,Co.Gen.VR	MT, Co, Gen, VR Dis, Gen, Co, VR HT	SP,HT SP,HT HT,Wh,Gen,VR	Co, Gen, VR, Dis Co, Gen, VR, Dis	Fst - Flat springs between facings, Gen - Grarestor. HB - Harmonic balancer. HT - High tension leads. L - Left. MA - Molded asbestos. MWA - Molded were asbestos.
	Cylinder	Numbering System System and Firing Order	1,5,3,6,2,4 1,5,3,6,2,4 11,8R,4R,3L,6R,5L,7L,2R 1L,8R,4R,3L,6R,5L,7L,2R	1L,8R,4R,3L,6R,5L,7L,2R	1L,8R,4R,3L,6R,5L,7L,2R 1L,8R,4R,3L,6R,5L,7L,2R 1L,8R,4R,3L,6R,5L,7L,2R 1L,8R,4R,3L,6R,5L,7L,2R	1L,8R,4R,3L,6R,5L,7L,2R 1L,8R,4R,3L,6R,5L,7L,2R 1,5,3,6,2,4 1L,5R,4R,3L,6R,5L,7L,2R 11,5R,4R,3L,6R,5L,7L,2R	1L.8R,4R,3L,6R,5L,7L,2R 1,5,3,6,2,4 1L,8R,4R,3L,6R,5L,7L,2R 1L,8R,4R,3L,6R,5L,7L,2R	1R,5L,4R,2R,6L,3R,7L,8L	14,94,44,24,64,34,74,64,1,34,1,34,34,34,34,34,34,34,34,34,34,34,34,34,	18.51,48,28,68,38,78,88	1R,2L,7R,8L,4L,5R,6L,3R	TR.ZL, 7R,8L,4L,5K,6L,3K 1L,8R,4R,3L,6R,5L,7L,2R 1,5.3,6,2,4 1L,8R,4R,3L,6R,5L,7L,2R	1L.8R,4R,3L,6R,5L,7L,2R 1L,8R,7L,3L,6R,5L,4R,2R 1L,8R,7L,3L,6R,5L,4R,2R 1L,8R,4R,3L,6R,5L,7L,2R	1L.8R.4R.3L.6R.5L.7L.2R 1L.8R.4R.3L.6R.5L.7L.2R 1.5.3.6.2 1.8R.4R.3L.6R.5L.7L.2R 1L.8R.4R.3L.6R.5L.7L.2R 1L.8R.4R.3L.6R.5L.7L.2R	
1		Gap	038			038	038		55555				980 030	036 036 036 036 036 036 036 036 036 036	n. nulley.
3	4	Tightening Terque (ft. (b.)	2222	2	5555	55555		123	2222	281	2 12	2222	2222	222222	haft pression tings.
		Thread (mm)	2222	7	2222	2222	2222	92	00000	222	2 2	2222	2222	222222	p-Compression.  Crankshaft pulley Coil springs. Dry. Dry. Distributor.  Distributor pressive gun fitting
2004		Make and Model	AL-AL-74 AL-AL-731 AL-AL-731 AL-AL-731	AL-AR-42	AL-AGR-42 AL-AGR-42 AL-AGR-32 AL-AR-42	AL-AR-32 AL-AR-31 AL-AGR-42 AL-AGR-42	AL-AGR-42 AL-AR-51 AL-AR-42 AL-AR-42	Ch-F-11-Y	Ch-F-1	Ch-F-11-Y	AC-44	**************************************	AC-46 AC-46 AC-46	Ch-H-18Y Ch-H-18Y Ch-H-18Y Ch-H-18Y Ch-H-18Y	2000 S C C C C C C C C C C C C C C C C C
5		Mark Lecation	9999	VD	9999	2222	2000	Q.	2000	200	9	S A A S A	9998	22222	
TIMING		C/s deg. @ RPM	38-500 58-500 58-500	8B-500	68-500 68-500 68-500 68-500	68-500 28-500 68-500	68-500 28-500 108-500	7	48-550 38-550 38-550	68-450	28-400	58-450 58-450 10-475	58-850 58-850 58-850 68-450	48-550 48-550 48-550 48-550 48-550	disc with disc with Los salancer, springs.
		MAKE AND MODEL	TORS CORP. 6-5801 6-5810 8-5810 8-5820 8-5820 8-5820		8-LC3 8-LC3-H 8-LC3-H 8-LC3-H	8-L53-8 6-LD2 8-L53-8 8-LD2	8-LP1 8-LP1 8-LP2 8-LP2	8	8-Corsair, Citation 8-Kall 8-Kill 8-Fairlane, Shirlane 500 8-Fairlane, Phunduchied	8-All 8-Monterey	8-40	8-50, 60, 70, 700 8-60, 62, 75 6-1100, 1500, 1700 8-1700	8-86.7 II-88, 888 8-98 8-58-25, 58-27, 58-27	8-58L Hawk 6-58C Hawk 6-58G 8-58G 8-58B 8-58B 8-58B	ABBREVIATIONS BB—Borg and Beck. BDV—Borgitte disc with damper.
			AMERICAN MOTORS CORP Rambler	CHRYSLER CORP. Chrysler	De Soto	Dodge	Imperial	FORD MOTOR CO.	Ford	Lincoln Mercury	GENERAL MOTORS CORP. Buick	Cadillac	Oldsmobile	STUDEBAKER-PACKARD CORP Packard Studebaker	ABBREVIATIONS  1—Or Champion H-10-64D.  2—Plata models, fan drive pulley.  3—Esbrando models, 108-450.  4—Or Champion, H-10: or AC, 451L.  AC—AC. Spark Plug Div.  AL—Atta-Lite.  AL—Atta-Lite.  B—Before ton center.

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Other Color   Color
14.45   17.75   10.00   17.7
57         67         57         14         107         100         57         100         107         100         57         100         100         100         100         100         100         100         100
57         67         87<
57         67         78<
57         67         67         64         69         69         18CB         79         N         70         70         N         70         70         N         70 </td
57         67         58         67         68         69         70<
57         67         67         69         67         69         67         69         70         69         70<
57         67         68         N         45         66         45         45         66         75         N         (3)         (3)         (4)         (5)         (4)         150B         (3)         (4)         (5)         (7)         (8)         (3)         (8)         (3)         (8)         (3)         (8) <t< td=""></t<>
57         67         67         78         78         79         78         79<
1445   67   57   1445   1073   1003   57   18CB   (*)   12CB   (*)   (*)   5FE756   (*)
57         67<
57         67         57         1445         67         1445         67 <th< td=""></th<>
1445 67 57 57 141 1003 1816 18CB10 11) (13) (14) (15) (15) (15) (15) (15) (15) (15) (15
1446   67   57   58   1141   10031   17   18CB10   110   12CB   13   13   14   15CB10   110   12CB   13   13   15   14   15
57         67         57         58         1073         10041*         57         24CB         (*)
57         67         57         58         1073         10041**         57         24CB         (4)
57         67         57         58         1073         1004         57         2008         (*)
57         67         57         1073         1004         57         15CB         N         4         AGC10         SFE         6         AGC3         N         AGC10         7<
57         67         57         53         1073         1004         57         25CB         (1)         (4)         SFE9         3AG20         SFE9         (7)         IAG3         (7)         SFE14         (3)         IAG3         (7)         SFE14         (3)         IAG3           57         67         57         58         67         57         58         (4)
57         67         57         63         (4)         (3)           1445         67         1445         1073         1004         57         22CB         (4)         (7)         (3)         (4)
1845   67   57   1445   1073   1004   57   18CB   0   0   0   0   0   0   0   0   0
1445         67         77         1445         1147         1004         67         1862         4         4         6         6         6         6         6         6         6         7         1463         1445         1141         1004         67         1303         6         7         4         6         6         6         6         6         7         1463           11034         67         7         7         7         6         7         4         6         7         4         6         7         4         6         7         7         4         7         1463         7         7         8         7         7         8         7         7         8         7         7         8         7         8         7         7         8         7         8         8         7         8         8         7         8         9         8         9         8         9<
1834 67 57 1445 107322 1004 57 2008 (4) (4) (4) AGC15 AGC15 (4) (4) (4) (5) 1462 1732 1004 57 2008 (4) (4) (4) (4) AGC15 (5) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4

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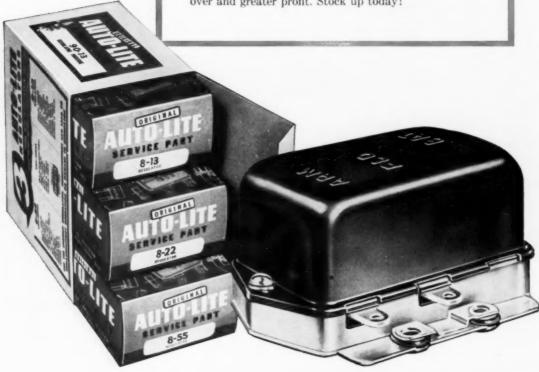
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# TIRES AND BRAKES

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		Rear	Size (length-w	Front	983.22.52.8 983.22.52.83 11.5.22.52.3 11.5.22.52.33		111 x 3 x 2 x 2 x 2 x 2 x 2 x 2 x 2 x 2 x 2	25 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1111.82 (. s.) 101.82 (. 111.82 (. s.) 111.82 (. s.)
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		Type	Brake	Power	Vac Vac	Vac Vac Vac Vac	Vac Vac	S S S S S S S S S S S S S S S S S S S	Vac Vac Vac
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	ydu	0£ 18 9	IIM 19	Hev. p	790.0 765.0 775.0 785.0	60.0 32.0 32.0 80.0 80.0 80.0 80.0 80.0	74.0 47.0 42.0 48.0	750.0 735.0 771.0 771.0 771.0 784.0 735.0 8	769.0 771.0 780.0
		PASSENGER CAR	MODEL		AMERICAN MOTORS CORP. Rambler 6-5801 8-5820 8-5820	CHRYSLER CORP.  Chrysler  Chrysler  S-LC3-H  S-L	Edecl 8-Corasir Citation 7 Ford 8-Corasir Citation 7 Ford 8-Thrundesbird 7 Lincoln 8-Monterey, Montedair 7 Mercury 8-Monterey, Montedair 7	Buick B-40, 8-40, 8-40, 8-40, 8-40, 8-40, 8-40, 8-70, 700 Cadillac 8-70, 700 Chevrolet 8-75, 8-87, 8-87, 8-87, 8-87, 8-87, 8-87, 8-88, 88, 88, 88, 88, 88, 88, 88, 88,	STUDEBAKER-PACKARD CORP. Packard 8-58L, 58L Hawk Studebaker 8-58G 8-58H 8-58H AND CORP.

1—Cane handle on Deluxe models.
2—Firestone only; U. S., 720.0; Good-rich, 717.0.
3—Top only; botton, 015.
ACC—Front, aluminum shell with east

iron liner; rear, centrifugally east, Cast MBe Adjust to drag, bark off 12 to 14 CALD. Adjust to light drag and back off Cast Tackbes.

CCI-Centringally sast, est iron
Con-Centrines, CIA-Cast iron alloy,
CIS-Cast from and steel centrifies,
CIA-Cast from and steel centrifies,
CON-Composite,
CRA-Composite rim, east alloy from:
Web, pressed steel.

CRC—Composite ribbed cast iron.
FO For operated, hand release.
FT four operated with non-ribose.
FY Hour operated with the ribose.
FY HOUR operated with the ribose.
FY HOUR internal expanding.
FY HOUR and a selection.
FY — Model askeries.

N—No or none.

NMA—No mapor adjustment required.

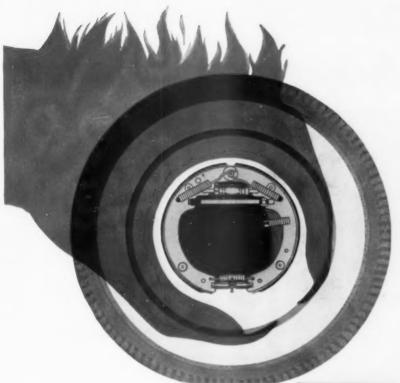
PSD—Pressed steel dise, fused to east iron rinn.

RB—Rear service brakes.

RP—Revered.

RS—Right of steering column.

SBC—Steel backed centrifugally cast
TH—TH-Thandle, multiple pawl ratchet.
The Thransiesion output Shaft.
UL—Under instrument panel, left of
vierring column.



Turn HEAT and WEAR brake problems into higher brake profits

WITH Raybestos

# THE LININGS THAT LICK THESE TWO DANGEROUS ENEMIES

Profit by the motoring public's need for a lining that can lick the dangerous heat and wear brake problems of modern driving. Raybestos linings combine the latest materials and engineering techniques to give your customers the six performance characteristics they want and need: greater heat resistance, greater fade resistance, increased braking power, longer lining life, really quiet operation, positive safety.

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- 3. Inspect front wheel bearings
- 4. Clean brake assembly
- 5. Check hydraulic system
- 6. Adjust brakes or recommend reline
- 7. Road test brakes

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# Wasner Lockheed

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NO LARGE INVESTMENT IS REQUIRED. When you agree to become a Wagner Lockheed Franchised Dealer, you make only a modest investment in fast-moving Wagner Lockheed brake parts, fluid, and lining—like the assortments offered with the handy merchandiser described at the left.

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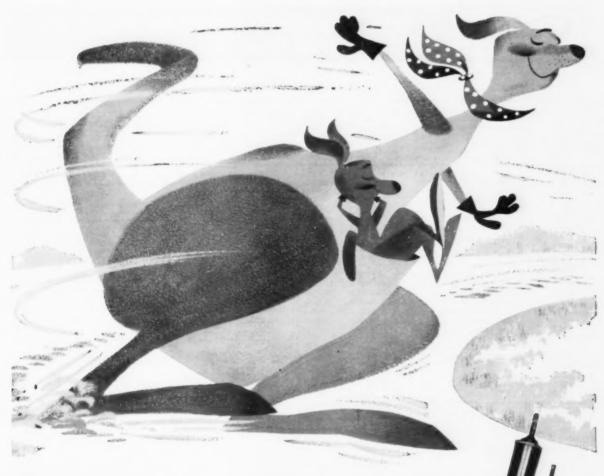
FIRM NAME

ADDRESS

CITY & STATE

# FRONT SUSPENSION AND STEERING

				Drag Lin	2222	*******	******	24445554444	2222	arm, equal
	Linkage			Тура	28888 FFEE	*********	2555555	24202449% REERT TERRE	88888	rods. rods. rad. rad. ra. ra. ra. ra. ra. ra. ra. ra. ra. ra
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			(to-1)	Over-	18.6	-44-4-4	25.2 25.2 22.5 22.5 22.5 22.5 24.0 24.0 24.0	23.00 52.7.7.22.7.7.00 60 60 60 60 60 60 60 60 60 60 60 60 6	28.0	549 - Saginaw, elf-Aymactival feller arm, elf-Aymactival, length tir roda. In the Symmetrical - Triple action. In Triple action have for Transverse. If - Transverse. In the Symmetrical independent, abort long arm, and roller. WR Worm and there tooth roller.
	Power	Gear	Ratios	Cen	88.0	7.7.25 7.7.7.7.25 7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.	28020000	17.5 20.0 20.0 20.0 119.0 119.0	19.0 21.0 21.0	Sage Sym TT-TT TT-TT UIS- WAR
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<b>13</b>				Type	<b>z</b> žžž	222222222	בבב בבבבב	2	בבב	LP-Link paral  N-No or ram.  N-No or ram.  A-Rear of ware ball.  R-Rear of ware ball.  Ing ball and rating bal
STEERING			(1-ot	Over-	22.0 24.0 25.6	28.88 0.80.0 28.88 0.80.0	25.00.27.08	27 2823 28 27 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20	28.00	Dower Dower of Co.
STE	Mechanical	Gear	Ratios (to-1	Gew	20.4	282 282 282 282 282 282 282 282 282 282	22 2000.00	2 232382 2	21.0	Lk-Linkage power areist. Li-Linkess. LP-Link parallelegr Men-Monroe. Non-Monroe. Pout-Parallel dreg link. Pout-Parallel dreg link. Pout-Parallel dreg link. Pow-Power. RB-Rear of wheels. RB-Recrivelating ball and mut. RBN-Recrivelating ball and mut. RR-Recrivelating ball and mut. RR-Recrivelating ball and mut. RR-Recrivelating ball and rack. RR-Recrivelating ball and rack. RR-Revenuelating ball and rack.
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				Type	A S S S	A RETANTA	NA SA CAN	EXXXXEE 0 0 X 5	ಶದಿಶಶ	
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			(Inort)	et d'ud eutside	357° 373° 39°8°	43.7 46.11 46.11 46.71 46.77 46.23 42.37	43.25. 40.15. 40.15. 44.44. 43.71.	446 371HT 3810 420 420 420 430	42'8" 40'0" 42'6"	er end end range r
	Turning		lisW (Inort)	ot lisW ebistue)	37.11*	86689888888888888888888888888888888888	43.10	45741 4724 4734 4734 4734 4734 4734 4734 4734	45.0° 45.0° 45.0°	Independent from upper and low proted at inner bushings. Bushings. Independent sho special joint of the bushed inner sayings. At side. Indivises and fram Longitudinal.
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				Lype	Mec	Mec Mec Mec	Mec Mec Mec	Mec	Mec o	il spring trailing. il spring unequal swept no. -parallel barn.
		00	ı. L	Stabiliza	SEED	2225252555	כככככללככ	22222×22222	3233	and short arm and short arm and short arm and short aring coint coil spring ing two unequal a arms swept aspension aspension aspension ara corsion hars. ct action coil
	pers	("1)	liam. (	Piston C						M M M M M M M M M M M M M M M M M M M
	Absor			Type	0000	000000000	000000	00 000000		with long y and lower y and lower fent ball joincorporati transverse for coil su dent chief lacer arms with the dent direct dire
	Shock Absorbers			Make	Mon Mon Mon	00000000000000000000000000000000000000	Var Var FMG Gab Gab F-G	33 333333	9000	Independent ball joint on system with long, and sh geometry and lower arm independent ball joint on yardem incorporating two length transverse arms long-predict oil suspension independent oil suspension independent learns and independent learns are control arms with tension direct, artisty springs.
FRONT SUSPENSION			hso. ngise	Design I (Ib. @ d (Ingien)	755 10% 960L 8% 1000L 8%		2400 16 4 2840 17 225 92 225 92 225 92 225 92 225 92 225 92 225 92 225 92 225 92 225 92 225 92 92 92 92 92 92 92 92 92 92 92 92 92	2400 10.1. 2550 10.1. 2800 10.1. 2800 10.1. 1800 10.1. 1145 9.3. 2445. 2448. 2448.	1505 87, 1442 81, 1595 81, 1595 87,	IBC-I
T SUS			Wheel in.)	Hate at 1b, per	100 93 L 80 L	105 170 170 170 170 170 170 170 170	827285582	95 95 1120 1100 1100 1100 1000 1000 1000 100	28 8 8 8	stud. Ingth o. ord.
FRON	Spring		etai ("n	Spring F	90 E		380 400 444 345 355 355	370 390 370 475 370 275 370 300 300 290	385 385 385	r roller h equal l joint. 4 Delo Fo F Gabriel.
			10 . 1959ff	Coil I. Dias				44446664444	古古古古	
		Size	1/1g ritgne	Coil Hei or Bar L	000000	1001010111	5755 575 575 575 575 575 575 575 575 57	000000000000000000000000000000000000000	00000	CL—Cam and ningle lev Co—Coil. CP— CS—Conter steroring with CS—Conter steroring with CS—Coin project and by CT—Coin and twin leve D—Direct scring. D— F—Prost of wheeler F—G—Pord or Cabriel. FMG—Ford or Cabriel. FMG—Ford or Cabriel. FMG—Ford or Cabriel. FMG—Ford or Cabriel. Gab—Cabriel.
				Type	<b>ವಿವಿವಿವಿ</b>	222222222	888888888	88888888888	<b>ಬಿಬಿಬಿ</b> ಬಿ	Control Contro
				Type	0000 AAAA	555555555	800 SEE EE	888 888 888 888 888 888 888 888 888 88	SS 525 505 505 505 505 505 505 505 505 505	
		PASSENGER CAR	MODEL		AMERICAN MOTORS CORP. 6-5801 6-5810 8-5810 8-5820 8-5820	Chrysler CORP.  Chrysler 8-LC3-H 8-LC3-H 8-LC3-H 8-LC3-H 8-LC3-H 8-LC3-LC3-H 10-cdpe 6-LD1, 8-LC1, LD3 Imperial 6-LP1 Plymouth 8-LP2 8-LP2-H Fury.	Edsel Caranic Pacer Edsel Caranic Citation Ford 6, 8-Fairlann 300 B. Caranic Fairlann Eairlann Soll Lincelin 8-Thunderbird Amercary 8-Montersy 8-Montersy 8-Montersy 8-Montersy 8-Montersy 8-Montersy 8-Montersy 8-Montersy	Butck B-40, 60 B-40, 60 Butck B-40, 60 B-50, 70, 700 B-50 B-50 B-50 B-50 B-50 B-50 B-50 B-	STUDEBAKER-PACKARD CORP Packard 8-58L, 58L Hawk Studebaker 6-28G 8-28G 8-58H, 58H Golden Hawk	ABBREVIATIONS BG—Belt from crantshaft pulley. Bas—Bennia and clong transverse arms and coil springs in underscenters arms and coil springs in underscenters concentrated by pockets, with shock absorbers concentrically mounted in springs. BN Ball nut. &S-Ball and socker. BNS—Ball nut and sector.



# Gabriel takes the swerves out of curves

 Gabriel shock absorbers are engineered to assure positive control of springs and wheels
 . . . on curves, rough roads, sudden stops.
 They're designed to provide greater stability and roadability, for safer, more comfortable riding.

And Gabriel's *complete* line lets you take care of *every* shock need . . . for any type of driving, on any type suspension . . . for greater shock sales and profits.

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Cleveland 15, Ohio

HydrOshox—for smooth driving under average road conditions.

AjustOmatic—exclusive 3-way adjustment provides soft, medium or firm ride ... for the particular driver who wants the best in ride control.

Silver "E"—for hard driving and rough roads with heavy loads. Extra size and capacity for big cars, station wagons, light trucks.

Model F Extra Heavy Duty—for long life and dependable service on trucks, buses, trailers.

Gabriel SHOCK ARSOBRERS



# 1958 SHOCK ABSORBER SPECIFICATIONS

For all popular passenger cars and trucks

CAR MAKE	MODEL	STANDAR	SHOCKS	CAR MAKE	MODEL	STANDARI	SHOCKS
AND YEAR	MODEC	FRONT	REAR	AND YEAR	MODEL	FRONT	REAR
1958 1958 1957 1956 1955-54	All—with Steel Springs	All—with Steel Springs 6513-B 7715-B 1956-51 All with Air Suspension 6513-B 7715-B 1956-51 All 18245-B 18285-B 8213-B 1956-52 All 2836-283-283-283-283-283-283-283-283-283-283		1956-52 1956 1956-52	F-100, F-250, F-350 Trucks Pass. Car Thunderbird Station Wagon F-100, F-250 Truck Pass. Car	6513-B 4719-B 4761-B 4761-B 18348-B 4719-B	18349-1 7737-1 7738-1 8214-1 18349-1 7715-1
CADILLAC		10110 P	0510.0	1951-49	Station Wagon	4761-B	924-
1958 1958 1958 1957 1956	All (Exc. 70) with Air Suspension	(Exc. 70) with Air Suspension         7737-B         8518-B         HUDSON           del 70—with Air Suspension         7737-B         8518-B         1957           Pass. Car         18110-B         18118-B         1956-55           Pass. Car         18026-B         18118-B         1958-55           Pass. Car         18026-B         9219-B         1958-57           Pass. Car         18026-B         9219-B         1958-57           Pass. Car         5040-B         9219-B         1958-57           Pass. Car         18595-B         18597-B         18597-B           (Exc. Corvette)—with Steel Springs         18596-B         18597-B         1958-57           (Exc. Corvette)—with Steel Springs         18485-B         18485-B         1958-57           1956-55         18485-B         18485-B         1958-57           1956-55         18110-B         9219-B         1958-57           1956-55         18110-B         9219-B         1958-57           1956-55         18110-B         9219-B         1958-57           1956-55         18110-B         9219-B         1954-52           1951-49         18110-B         9219-B         1954-52           1951-49         1848		1957	Pass. Car	18437-B 18117-B	1022- 1022-
1955 1954 1953-52	All Pass. Car All Pass. Car All Pass. Car			1958-57	All	18439-B 18109-B	18440- 8031-
1958 1958 1958 1958 1958 1958 1958 1957 1956-55	All (Exc. Corvette)—with Steel Springs All (Exc. Corvette)—with Air Suspension. Corvette—with Steel Springs ½ and ¼—with Steel Springs 1 Ton—with Steel Springs All (Exc. Trucks) All (Exc. Trucks)			1958-57 1958-57 1956-55 1956-55 1954-52	All Pass. Car (Exc. Parklane)— with Steel Springs Station Wagon—with Steel Springs Pass. Car Station Wagon All All	18432-B 18432-B 4763-B 4763-B 4763-B 4763-B	18433- 18434- 18123- 8518- 8518- 8710-
1957 1956 and 2nd Series 1955 1954-49	% and % Ton Truck (Models 3100 and 3600)  1 Ton Truck (Model 3800)  ½ and ¼ Ton Truck All (Exc. Trucks)			1958 1957 1956-55	All (Exc. Ram. Am. Dom.)— with Steel Springs All (Exc. Rambler) All (Exc. Rambler) Ambassador and Statesman	18117-B 18437-B 18117-B 629-B	9550- 1022- 1022- 1022-
1958-57 1956-55 1954-51 DESOTO	AIIAII.			1958 1958-57	All Pass. Car—with Steel Springs	18600-8 18601-8 18600-8 18284-B 5290-B	18442- 18602- 18443- 8019- 8019-
1958-57 1956-55 1954-51	All	18439-B 18109-B 4224-B	18440-B 8031-B 8031-B	PACKARD 1958-57 1956	All	18435-B 5040-B	18436- 8030-
1958-57 1957-54 1956-55	All (Exc. Truck) ½, ¼, 1 Ton Truck All (Exc. Truck)	18439-B 18487-B 18218-B	18440-B 18487-B 8031-B	1956 1955 1955	5620 Conventional 5640, 5660, 5680 Torsion Bar 5520 Conventional 5540, 5560, 5580 Torsion Bar	18286-B 5040-B 5040-B	9550- 8030- 9550-
1954-51 EDSEL 1958 1958	All (Exc. Truck)  Ranger and Pacer—with Steel Springs Corsair and Citation—with Steel Springs	4224-B 18432-B	8031-B	1958-57 1956-55 1954-51	All Pass. Car and Station Wagon All Pass. Car and Station Wagon All	18439-B 18218-B 4224-B	18440 8031 8031
1958 1958 1958 1958	Station Wagon—with Steel Springs . Pacer and Ranger—with Air Suspension Corsair and Citation—with Air Suspension Station Wagon—with Air Suspension	ngs 18432-B 18581-B 18432-B 18434-B PONTIAC 18581-B 18582-B 1958		1958 1958 1958	All Pass.—with Steel Springs Station Wagon—with Steel Springs All Pass.—with Air Suspension Station Wagon—with Air Suspension	18603-B 18603-B 7737-B 7737-B	8500- 7715- 8500- 7715-
FORD 1958	All Pass. (Exc. Model 51-A)—	18432-B	10460 B	1957-49	All (Exc. Canadian Small)	5290-B	8019-
1958 1958	with Steel Springs All Pass. (Exc. Model 51-A)— with Air Suspension All Station Wagon, Ranchero and Model	18581-B	18462-B	1958 1957	Rambler American 100" W. B.— with Steel Springs 5720, 5710	5515-B 18117-B	8520- 9550-
1958	51-A—with Steel Springs All Station Wagon and Model 51-A—	18432-B	18434-B	1956 1956	After Serial D-285313	18117-B 18117-B	9550- 8520-
1958 1958 1958 1957 1957	with Air Suspension F-100, F-250, F-350—with Steel Springs P-350 P-400 Pass. Cars—with Steel Springs Station Wagon—with Steel Springs	18581-B 6513-B 8500-B 8500-B 18432-B 18432-B	18434-B 18349-B 18349-B — 18462-B 18434-B	<b>STUDEBAKER</b> 1958-57 1956-51 1950	All Pass. Car	18435-B 5290-B 5040-B	18436- 18027- 18027-

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AjustOmatic • HydrOshox • Silver E • Model F Extra Heavy Duty

The only complete line of shock absorbers

THE GABRIEL COMPANY • CLEVELAND 15, OHIO

# PROPELLER SHAFT, AND REAR AXLE

# WHEEL ALIGNMENT, AND REAR SUSPENSION

	Sale	3	Piston Diamete						
	Shock Absorbers		Type	0000	00000000000	000000	00 000000		springs
	Shock		Make	Man	00wn 00wn 00wn 00wn	Ver FMG Gab Mon F-G	33 333333	111111	In coil
			Design Load (lb. at design height)	650-46-A 770-10-1 770-10-1 800-10-5	800-57%L 800-80%L 800-80%L 780-80%L 780-60%L 770-57%L 770-57%L 770-57%L 770-55%L 770-55%L 780-55%L	925-55 990-55 800-55 800-55 1300-10-4 1740-9-4 950-56 950-60	975 946 1090 944 1665 944 1970 821 1950 1031 725 1037 725 51 965 1378 961 1378 961	700 54 700 54 700 56 700 56 700 56 700 56 700 56	StSteel. T. Triple action. T. Triple action. TG. Trailing arm. TG. Trailing arms and coll springs. The Threaded. The Threaded.
			Rate at Wheel (Ib. per in.)	5885	130 130 130 130 130 130 150 150	18470723	112 128 116 128 1115 1115	222222	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
-			Spring Hate (Ib, per in.)	8888	95 135 95 95 95 95 95 95 95 95 95 95 95 95 95	110 107 107 260 260 95	112 222 222 222 225 226 230 230 115 265 230 230 230 230 230 230 230 230 230 230	888888	-
	Spring		No. of Leaves or Coil I. D.	10444 /2/2/2/	ちのアアちのようアルちの	@F444400	22222244	***	d metal.
1		Size	Width or Bar Diameter	7			NON	*******	arms.
-			Length or	8000	222222222222222222222222222222222222222	22225 - 23 	\$4.000 PEC 98	22222	ical. ical. oints.
-			InhataM	5155 9260 8260 8260	**********	SS SS SS SS SS SS SS SS SS SS SS SS SS	9260 9260 9260 9260 9260 HAS AS AS 8260 9260 9260	55160 55160 55160 55160 55160	Positive.  Provided control ar  Reverse Elliot.  Somi-elliptical.  Spherical joints.
			Type	CCCK	222222222222	##### 00 ##	2222222344422	20 00 00 00 00 00 00 00 00 00 00 00 00 00	PPC President SE Ser
			ed4 <u>1</u>	2888	とととととととと	たとうなたとまま	22FFE 22223	22222	B.E.E.Soiso
-			eqtT gnitse8	####	**********	THECCOLT		EEEEEE	arings.
	ile		Thread Size	2222	22222222222	22 222	==888888==88	22222	pain.
	Wheel Spindle	-	Berring	7500 7500 7500 7500	7500 7500 7500 7500 7500 7500 77500 77500 77500	7500 77500 77496 77496 8430 8430 8433	2500 2500 2500 2500 7493 7493 7493 7490 7490 7490	7500 7500 7500 7500 7500	
-	Whe	Diameter	neduO	- KKKK	KKKKKKKKKKKK		999		gral with ide. ritudinal springs. onroe.
		D.	Inner Bearing	.2500 .2500 .2500	2500 2500 2500 2500 2500 2500 2500 2500		1.3740 1.3740 2.9630 2.9630 2.9630 1.2463 1.2613 1.2690 1.2490	2500 1.2500 1.2500 1.2500 1.2500	IK—Integral with kin L.—Left side. LS—Longitudinal leaf LS—Leaf springs. Mon—Monroe. N-N-gative.
-			Steering Spindl Bagy Triol bns	XXXX	00000000000000000000000000000000000000	9888888	22 222 22 23 22 22	22222	Z Z Z Z
-			Tow In (Outsid tread—in.)	424242	-0-0-0-0-0-0-0-0-0-0-0	24222444	2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-	22222	rallel
	Wheel Alignment		Camber (deg.)	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		900 900 900 900 900 900 900 900 900 900	## S.	91000 91000 91000 91000 91000	Gabriel. Monroe or Gabriel. modified with two parallel loy steel.
	Wh		Caster (deg.)	N.V. OO	SAN COOCOOCO	0 to 1P 0 to 1 P 0 to 2 N	NN	1N 10 2 2 2 3 N N 10 2 2 2 3 N N 10 2 2 3 3 N N 10 2 2 3 3 N N N 10 2 2 3 3 N N N N 10 2 3 3 3 N N N N N N N N N N N N N N N N	F-G Ford or Gabriel. FMG Ford, Monroe or Gab - Cabriel. H-Hotchkiss, modified HAS - High alloy steel.
			Thrust	2222	WWW.SSWW.SSWW.SSWW.SSWW.SSWW.SSWW.SSWW	22 555	2282222	22222	4
-	80	Bearings	Lower	FFFF	222222222	3333333	22222225 2222222	*****	le bearings.
-	ring Axis		Upper	NASS		2222223	25000000000000000000000000000000000000	22222	
	Stear		Inclination at Camber (deg.)			77 77 69 % 77 77 69 % 77 26 10' 69%		666666	BN—Bushing and need BS—Ball secket. Bu—Bushing. Co—Coil. CS—Coil springs. D Direct acting.
		PASSENGER CAR	MODEL	AMERICAN MOTORS CORP. 6-5807 6-5810 6-5810 6-5810 8-5810 8-5810 8-5820	CHRYSLER CORP. 84.C1. B4.C3.+	FORD MOTOR GO.  Efset Scorsal, Citation Fard GAII S-Thurdenbird Mercury S-Authoritair	Buick 8-40, 60 Buick 8-40, 70, 700 Cadillac 8-40, 100 Cherrolet 6-1100, 1500 T700 Oktomobile 8-40 Pontac 8-5uper Chief Star Chief	Packard B-86. Have B-86. Studebaker B-86. Have B-86. B-86. B-86. B-86. B-86. B-88. B	ABBREVIATIONS BN  - Left only: right, 34N to 14P. Bu- A8-Alloy steel. Co- Be-Ball. Co- BC-Ball and cone. D. D. D. D. D.

# TUNE-UP DATA ON 1953-1958 CARS

		_		VAL	VES		IG	NITI	ON		_	(Ott.)		CRA			FRONT AX	LE	
MAKE AND	No. of Cylinder Bure and	Clearance	ving (In.)	Opens Deg. ter T.C.	Opera Tapa Clearan	ett	Spark Plu Tapo W	9	Timi	(lin.)	Capacity (Qts.	m Capacity	Ratio ead)						Inclination
MODEL	Stroke (In.)	22	for Valve Timing	Intake Valve ( Before or Afte	Intake	Exhaust	Make and Mo	Gap (In.)	Spark Occurs No. Deg. Befo or After T.C.	Breaker Gap	Crankcase Ca	Cooling System	Compression (Standard He	Diameter (In.)	Length (In.)	Caster (Deg.)	Camber (Deg.	Toe-in (in.)	Kinonin Inclin
CK 0 195	3 8 4x3 14 4 8 4x3 14 4 8 4x3 15 5 8 4x3 15 5 8 4x3 16 6 8 4x3 17 7 8 4 1x3 8 8 4 1x3	00 00 00 00 00 00 00 00 00 00 00 00 00	04 + 04 + 04 + 04 + 04 + 04 + 04 + 04 +	138*- 258 258 258 258 258 258 258 258 258 258	015H AA AA AA AA AA AA AA AA AA AA	015H AA AA AA AA AA AA AA AA AA AA	AC-46x AC-44-5 AC-44-5 AC-44-5 AC-44-5 AC-44-5 AC-44-5 AC-44-5 AC-44-6 AC-44 AC-44 AC-44 AC-44 AC-44 AC-44	025 032 032 033 033 033 033 033 033 033 033	48 58 58 58 58 58 58 58 58 58 58 58	016 016 016 015 015 015 015 015 015 015 015 015	51-2 8 8 8 8 6 6 8 8 5 5		7 00 8 00 8 50 7 20 8 50 8 50 8 50 9 00 8 90 9 9 00 9 50 10 00 9 50 10 00	214 214 214 214 214 214 214 214 214 214	17.7.7.7.7.7.7.7.7.7.7.7.7.3.4.4.4.4.4.4.	1-N to \$4P 1-N to \$4P 1-N to \$4P 1-N to \$4P \$4N to \$4P \$4N to \$4P \$4N to \$4P \$4N to \$4P \$4N to \$4P 11-N to \$4P 1	5 kM to 3 kP 5 kM to 3 kP	1 to 1/6 1 to 1/6 1 to 1/6 0 to 1/6 1/6 t	43 43 00 00 00 77 77 77
1, 62, 75 195 1, 62, 75 195	4 8-3 x3 5 8-3 x3 6 8-4x3 7 8-4x3	56		228 228 198 398 368 368	AA AA AA AA	AA AA AA AA	AC-48-5 AC-48-5 AC-44-599 AC-44 AC-44 AC-44	035 035 035 035 035 035	21/38 21/38 58 58 58	013 019 019 019 019 019	5 5 5 5 5	1954 1954 18 1752 1952 1952	8 25 8 25 9 00 9 75 10 00 10 25	214 214 214 214 214	11	1-2N to 1-2P 0 to 1N 0 to 1N 1-2N to 11-2N 1-2N to 11-2N 1-2N to 11-2N	1/N to 1/P 1/N to 1/P 1/N to 1/P 1/N to 1/P 1/N to 1/P 1/N to 1/P	14 to 14 15 to 14 15 to 14 15 to 15 15 to 15 15 to 15	5° 5° 5° 4 4
195 (196 - 196 ) 195 (	3 6 3 4 x 3 4 6 3 4 x 3 6 6 3 4 x 3 6 6 3 3 4 x 3 6 6 3 3 4 x 3 6 6 8 3 3 4 x 3 7 8 3 3 4 x 3 7 8 3 3 4 x 3 6 6 3 3 4 x 3 8 6 6 3 4 x 3 8 8 8 4 4 x 3 8 8 8 8 4 4 x 3 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Property and the second		1A 188 1A4 19 B 1A4 12844 10 B 188 21 B 12 B 12 B 12 B 12 B 12 B 12 B 12 B	006H AA 010H 2 010H 2 006H AA	013H AA 020H 020H 013H AA AA 018H AA AA AA AA AA	AC-44-5	036 036 036 036 036 038 036 036 036 036 035 035	58 58 2A 2A TC 4B TC 4B 4B 4B 4B 4B 4B 4B 4B	015 015 016 019 019 019 019 019 018 019 019 019 019	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15 15 16 16 16 16 16 16 16 16 16 16 16 16 16	7 10 7 50 8 00 7 50 8 00 8 00 8 00 8 00 9 25 8 00 9 50 8 50 9 50 9 50 9 50	2 to	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 to 1P 0 to 1P 0 to 1P 0 to 1P 1 to 1P 1 N to 1P 1 P to 11P 1 N to 1P 1 N to 1P	0 to 1P 0 to 1	o to he had been to he had been to he	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
1986. 1958. 1958. 1959. 1969.	3 8 3 1 x 3 3 6 3 x 4 4 6 3 x 3 5 8 3 x 3 5 8 3 x 3 5 8 3 x 3 6 8 3 x 3 6 8 3 x 3 7 8 3 x 3 7 8 3 x 3 7 8 3 x 3 8 8 4 x 3 8 8 3 x 3 8 8 8 4 x 3 8 8 8 8 4 x 3 8 8 8 4 x 3 8 8 8 8 8 4 x 3 8 8 8 8 4 x 3 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	34 01 34 01 35 VI 35 VI 35 VI 35 VI 36 VI 36 VI 36 VI 36 VI 37 VI 38 VI 36 VI 36 VI 36 VI 36 VI 37 VI 38 VI	TS TS TS	158 128 128 158 158 158 158 358 138 138 138 138 138 138 138 138 138 13	AA 008H 008H AA AA AA 015 AA 015H AA AA 015H AA AA 015H	AA 010H 010H AA AA 024 AA 024H AA 024H AA 024H AA 024H AA	AL-45-140 AL-48-140 AL-463-180 AL-463-185 AL-4GS-175 AL-4GS-200 AL-AR-52 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42	035 035 035 035 035 035 035 035 035 035	4B TC TC 4B 6B 6B 106 2B 4B 8B 6B 6B 6B 6B 6B 6B 6B 6B	017 019 019 017 017 017 017 017 017 017 017 017 017	5555555555544558	25 15 15 25 24 25 25 25 25 21 21 24 24 24 21 24 24	7 50 7 00 7 00 7 00 8 00 8 50 8 50 9 00 9 25 9 25 9 25 9 25 10 00 10 00	214 214 214 214 214 214 214 214 214 214	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1N to 3N 0 to 2N 0 to 2N 0 to 2N 0 to 2N 0 to 11 2N 0 to 11 2P 3N to 34P 34N to 34N t	36N to 34P 36N to	0 to	71 53 51 71 55 55 55 55 56 66 66 66 66 66
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3010 161 193 181 198 199 199 200 199 21 199 221 199 222 190 224 40venturer 198 25, 525 198 26, 64dventurer 198 52, LS3-H 199 S3-S 199	3 8 3 x3 3 8 3 x4 4 8 3 x4 5 8 3 x3 5 8 3 x3 5 8 3 x3 6 8 3 x3 6 8 3 x3 7 8 3 x3 7 8 3 x3 8 8 4 x3 8 8 4 x3 8 8 4 x3	01 V V V V V V V V V V V V V V V V V V V	TS	128 128 128 128 128 128 14A 4A 15B 35B 16B 15B 15B 15B	AA 008H AA 008H AA AA AA AA AA AA AA AA	AA 008H AA 010H AA AA AA AA AA AA AA AA AA	AL-4S-140 AL-4S-140 AL-4S-160 AL-4S-160 AL-4S-160 AL-4R-51 AL-AR-62 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42 AL-AR-42	035 035 035 035 035 035 035 035 035 035	48 28 48 26 48 108 88 68 68 68 68 68 88	017 019 017 019 017 017 017 017 017 017 017 017 017	86865844886544	22 15 22 15 23 23 23 23 23 20 20 20 16 16	7 10 7 50 7 50 7 50 7 50 7 50 8 50 8 50 9 25 8 50 9 25 9 25 10 00 10 92	214 214 214 214 214 214 214 214 214 214	12	1N to 3N 0 to 2N 0 to 2N 0 to 2N 0 to 2N 0 to 114 N	34N to 34P 34N to 34P 0 to 34P1 0 to 32P1 0 to 32P1 0 to 32P1 0 to 32P1 0 to 32P1 0 to 32P1	O to the O t	515555555555566666666666666666666666666
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For abbreviations see page 80

# TUNE-UP DATA ON 1953-1958 CARS

			VAL	VES		- 10	BNITI	ON		-	(Qts.)			ANK-		FRONT AX	LE	
MAKE AND MODEL	No. of Cylindera, Bore and Stroke	Clearance ning (In.)	Opens Deg. ler T.C.	Tap	rating pett nce (In.)	Spark Pi	_	Tim	_	Capacity (Qts.)	m Capacity	Ratio ead)	0			-		nclination
WODE	(In.)	Inlet Tappett Clear for Valve Timing (	Intake Valve Op Before or After	intake	Exhaust	Make and M	Gap (In.)	Spark Occurs No. Deg. Before or After T.C.	Breaker Gap	Crankcase Ce	Cooling System	Compression (Standard He	Diameter (In.	Length (In.)	Caster (Deg.)	Camber (Deg.	Tee-in (in.)	Kingain Indin
OSEL nger, Pacer	8-4-1x312 8-4-1x311		22B 22B	AA AA	AA AA	Ch-F-11-Y Ch-F-11-Y	034	7B 7B	015 015	5	183 <sub>2</sub> 22	10 50 10 50	2 1	11	0 to 1P 0 to 1½P	1-2P to 1P 0 to 3-4P	to ½	7 7
HD  (8 1953  1953  1954  (8 1954  (8 1955  8 1955  0A, 40B 1955  (9 1956  Main. Cust. 1956  (9 1956  A 40B 1956  OA, 40B 1956  Cust., Cust. 300 1957  Pairlane, Fair. 500 1957  Pairlane, Fair. 500 1957  Cust. 300, Fair. 1958  Cust. 300, Fair. 500 1958  Cust. 300, Fair. 500 1958  Fiar. 500 1958  Fiar. 500 1958  Fiar. 500 1958  Fiar. 500 1958	6 3 % X X X X X X X X X X X X X X X X X X	018†† 013 013 015†† ER ER 016†† 019H 019H 019H 019H 019H 019H	58 138 88 128 128 128 128 128 128 128 128 128	014C 015H 019H 019H 019H 019H 019H 019H 019H 019	018C 015H 019H 019H 019H 018H 019H 019H 019H 019H 019H 019H 019H 019	Ch-H-10 Ch-H-10 Ch-H-10 Ch-H-10 Ch-870 Ch-8711-Y	031 036 035 034 034 034 034 034 034 034 034 034 034	2B TB 6B 3B 6B 6B 5555 3B 5555 4B 5555 4B 5555 3B 3B 3B 3B 3B 5555 4B 3B 5555 4B 3B 5555 4B 3B 5555 4B 3B 5555 5555 5555 5555 5555 5555 5555	015 025 025 015 025 015 015 025 015 015 025 025 025 015 015 025 015 015 015	4 4 4 5 4 5 5 5 5 5 4 5 5 5 5 5 5 5 5 5	15 15 20 15 19 20 14) <sup>2</sup> 19 21 21 21 15 19 20 20 20 15 19	7 28 7 00 7 20 7 20 7 20 7 50 8 10 8 00 8 00 8 40 (k) 8 60 9 10 9 10 9 10 9 10 9 50 10 20	222222222222222222222222222222222222222	- 6	1 to 12P 0 to 1P 0 to 1P 12P to 112P 12P to 112P 12P to 112P 0 to 112P 0 to 112P 12P to 112P	0 to IP 0 to IP 0 to IP 0 to IP 1 to I	to t	5 76 76 77 77 77 77 77 77 77 77 77 77 77
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PEHIAL  58, C59 1953  64, C86 1954  69 1955  70 1955  70 1956  73 1956  M1 1957  Y1 1958	8-3 2x35 8-3 2x35 8-3 2x35 8-3 2x35 8-3 2x35 8-4x35 8-4x5 8-4	VTS VTS VTS VTS VTS VTS VTS	158 158 158 158 158 158 158 158	AA AA AA AA AA AA	AA AA AA AA AA	AL-4S-140 AL-4GS-150 AL-4GS-175 AL-4GS-175 AL-AGR-42 AL-AGR-42 AL-AGR-42 AL-AGR-42	035	4B 4B 6B 6B 4B 4B 6B 6B	017 017 017 017 017 017 017 017	55555555	25 25 25 25 25 25 25 24	7 50 7 50 8 50 8 50 9 00 9 00 9 25 10 00	214 214 214 214 214 214 214 214 214	No. No. No. No. of Street, or other teaching of the street, or other teaching or oth	1N to 3N 1N to 3N 0 to 2N 0 to 2N 0 to 2N 0 to 2N 0 to 112P 0 to 112P	54N to 54P 54N to 54P 54N to 54P 54N to 54P 54N to 54P 54N to 54P 0 to 14P1 0 to 14P1	0 to 1/4 0 to 1/4 0 to 1/4 0 to 1/4 1/4 1/4 1/4 to 1/4	714 714 612 7 7 612 612 612
ICOLN   1953   1954   3A, 73B   1955   3A, 73B   1956   7A, E, 58A, B, 60A, B, 76B   1957   1958	8-3 2x3 2 8-3 2x3 2 8-3 2x3 2 8-4x3 2 8-4x3 2 8-4x3 2	AA ER	18B 18B 3B 18B 18B 27B	AA AA AA AA	AA AA AA AA	Ch-H-10 Ch-H-10 Ch-870 Ch-860 Ch-860 Ch-F-11-Y	036 035 034 034 034 032	3B 3B 5B 5B 5B 6B	015 015 015 015 015 015	555555	221 <sub>2</sub> 23 231 <sub>4</sub> 23	8 00 8 00 8 50 9 00 10 00 10 50	284 214 214 214 214 215	Appetition of the Control of the Con	0 to 1 2N 0 to 1 2N	0 to \$4P 0 to \$4P 0 to \$4P 0 to \$4P 0 to \$4P 0 to \$4P 0 to \$4P	A to	7°10 7°10 7°11 7°11 7°11 7°12
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8, 98 1953 8, 98 1954 8, 98 1955 8, 98 1955 8, 96 1957 8, 96 1957 8, 98 1958	8-3 <sup>3</sup> 4x3 <sup>1</sup> 6 8-3 <sup>7</sup> 6x3 <sup>1</sup> 6 8-3 <sup>7</sup> 6x3 <sup>1</sup> 6 8-3 <sup>7</sup> 6x3 <sup>1</sup> 6 8-4x3 <sup>1</sup> 8 8-4x3 <sup>1</sup> 8	003†† ER ER ER ER	13 B 13 B 13 B 11 B 11 B 13 B	AA AA AA AA	AA AA AA AA	AC-46-5 AC-46-5 AC-44-6 AC-44 AC-44 AC-44	030 030 030 030 030 030	21-28 58 58 58 58 58 58	016 016 016 016 016 016	5 5 5 5 4	201-2 201-2 201-2	8 00 8 25 8 50 9 25 9 50 10 00	214 214 214 214 214 214	7/8 7/8 7/8 7/8 7/8 8	0 to 34 N 0 to 34 N 0 to 34 N 0 to 34 N 0 to 34 P 0 to 1N	14N to 14P 14N to 14P 14N to 14P 14N to 14P 14N to 14P	10 1/4 1 to 1/4 1 to 1/4 1 to 1/4 1 to 1/4 0 to 1/4	8 5°5 5°5 5°5 7
1963	8-31-2x33-4 8-31-2x41-4 8-31-2x41-4 8-31-2x41-4 8-31-2x41-4 8-31-2x41-4 8-31-2x41-4	013 AA 012 012 NU	15B 15B 15B 15B 15B 10B 10B	007H 007H AA 007H 007H AA AA	010H 010H AA 010H 010H AA AA	(d) (d) (d) Ch-J-8 Ch-J-8 Ch-J-8	026 026 026 028 028 028 028	68 68 68 68 68 7C	015 015 015 015 015 015 015	7 7 7 7 7 7 7	20 20 20	7 70 8 00 8 00 7 70 8 00 8 00 8 00 8 70	214 214 214 214 214 214	1A 1A 1A 1A	12N to 112P 12N to 112P 12N to 112P 12N to 112N 12N to 112N 12N to 112N 12N to 112N	0 to 34P 0 to 34P 0 to 54P 14N to 34P 14N to 34P 14N to 34P	0 to 1: 0 to 1: 0 to 1: 0 to 1: 0 to 1: 0 to 1:	51/2 51/2 51/2 51/5 51/5 51/5 51/5 51/5



# HYGRADE CARBURETOR TUNE-UP PARTS

for complete listing write for Hygrade Tune-Up Chart No. 1122

# HYGRADE PRODUCTS DIVISION

STANDARD MOTOR PRODUCTS, INC. 37-18 NORTHERN BLVD., L.I. CITY 1, N.Y.

									_		
Car, Year and Model	*	Carburetor Type & Number	Hygrade Jiffy Kit	Car, Year and Model	*	Carburetor Type & Number	Hygrade Jiffy Kit	Car, Year and Model	*	Carburetor Type & Number	Hygrade Jiffy Kil
BUICK, Carter Eq						arter Equipped Con		NASH			
54 40, 50	C-2		A77C A115C	57 8 Cyl. D66, 7, 70, 1, 500 Auto. Tr.,	C-4	WCFB; 2530S, SA, 32S, 2622S	A182C	51-55 6 Cyl., Rambler,	C-1	YF; 876SA, 7SA,	A148C
55 40 55 50, 60, 70	C-2 C-4	WCD; 2179S WCFB; 2197S	A116C	Pow. Pack; Can.		360, 69660		States. 56-57 6 Cyl., Rambler.	C-1	2014S AS: 2349S, 2564S, 80	A190C
55-56 40 All Trans	C-2	WGD; 2292S, 2378S,	A151C	D65 Pow. Pack.				58 6, Amer. Std. Tr.		YF: 2014S	A148C
		2400S	A152C	57-58 6 Cyl. D72, Taxi		The second second	A137C	OLDSMOBILE Car			74.400
55	C-4 C-4	WCFB;2358S WCFB; 2347S	A154C	DODGE, Passenger				54 Deluxe 88	C-2	WGD: 2058S	A98C
57 40 Auto. Trans	C-2	WGD; 2536S	A151C	53-54 8 Cyl. D44, 8, 50,	S-2	WW; 3-105, A, 6, A,	A94S	54 Deluxe 88	C-4	WCFB; 2059S, 2246S	A134C
57 40 Std. Trans 57 50, 60, 70	C-2 C-4	WGD: 2529S AFB: 2507S	A180C A188C	3, All Tr. Can. D44 54 8, D50, 53, Auto Tr.	S-2	8, A, 9, A WW; (3-118)	ASAS	OLDSMOBILE, Ro	ches	ter Equipped	
			Alouc	55-56 6 Cyl. D56-1,	S-2	WW; (3-124, 5, 6)	A128S	54-56 Super 88, 98,	R-4	4GC; 7605900, 6000,	A135R
BUICK, Rochester			ATSOR	62-1; Can. DS4-1, 2,-4, 60-1,-2,All Tr.				All Trans.		7000, 7221, 22, 9902, 3	
55 50, 60, 70 56 50, 60, 70	R-4 R-4	4GC; 7006200, 9100 4GC; 7909209, 9900	ATSSR	55 8 Cyl. D55-1,-2,	5-2	WW; 3-131, A, B, C,	A128S	55-56 Deluxe 88; Can.	R-2		A165R
57 50, 60, 70	R-4	4GC; 7010070, 5700	A184R	All Trans		32. A. B. C. 33. A. B. C. D		36 Ser. Auto. Tr.		9300	
58 50, 60, 70, 700	R-4	4GC; 7011600, 5800	A214R	55 8 Cyl. D55-3, All	S-2	WW; (3-120, A, B, C,	A128S	57 All, All Trans	R-4		A186R
<b>BUICK</b> , Stromber	g Equ			SS-S6 6 & 8 Cyl. DSS-1,	S-2	21, A, B, C, 22, A, B, C, D WW: (3-120D, 21D,	ATZES	58 88 Auto, Tr.	R-2	7015794 2GC; 7012450, 5805	A209R
53-54 '53-54, 50; '54, 40	S-2	AAVB-267; 7-95, B, 96	A765	2,-3, 56, 62,		22E, 28, 31D, 32D,		58 Super 88, 98 All	R-4	4GC; 7012400, 91,	A215R
55 40 Auto. Trans	S-2 S-2	AAVB-267; (7-102) WW; (7-103, 4, 5A, B)	A117S A153S	All Trans		33E, 34, A, B, 42, 43, 44)		Trans.		5814	
57 40 Auto. Trans.	S-2	WW; (7-106)	A183S	56 8 Cyl. D63-1,	S-2	WW; (3-135, A, 6, A,	A160S	PLYMOUTH, 6 Cy	I.—C		
	berg	& Carter Equipped	1	All Trans		7, 8A, 9A, 40, A, C)	*****	42-54 P14, 15, 17 to 25	C-1		A101C
56 All	C-4	WCFB: 2333, SA, 34S,	A156C	57-58 6 & 8 Cyl. D66, 7, 70, 1, 2	S-2	WW; (3-149, 50, 59, 60)	A1605	54-56 6 Cyl., P25, 26,	C-1	L1, 2, R1, S1, U1 BBS; 920SA, 93SA,	A100C
		SA, 70S, SA, 71, 72S,				****		All Trans.	0-8	94SA, 2215S, 48S	ATOUG
		73,2543S, 44S, 45S		FORD, Passenger				54-58 6 Cyl., All Trans .	C-1	BBS: 2062S, SA, 63S.	A137C
CADILLAC, Roche				47-51 6 Cyl., 226 Eng., 90, 95 H.P., "H"	F-1	1HA, 7HA, 8HA- 9510A, 8HA-9509A	AZEF			SA, 2116S, SA,	
\$4-55 All	R-4	4GC; 7006220, 1, 6962, 3	ATTER	Series, All Trans.						2249S, 93S, 4S, 5S, 6S, 7S, 8S, 2380S,	1
SS All	R-4	4GC; 7006655, 56, 7970, 71, 9070, 71	ALTER	52-57 6 Cyl., All Trans.	F-1	EAA-9510D, E, G, H,	A198F			82S, 2403S, 10S,	
S& All	R-4	4GC: 7008750, 51.	A157R			L, M; EBP-9510A, B, G, H, J, K, M,				2567S, 8S, 9S, 2604S	4
\$7-58 All	R-4	9750, 51, 9901 4GC; 7010100, 0101,	ATESRA			N. T. U. AA: B4A-		PLYMOUTH, 8 Cy	1 0	arter Equipped	
34-30 AH	W-4	5701, 5757, 5801,	AIDMA			9510B; B5A-9510S, V; B6A-9510G, H,		55 8 Cyl., 241 Eng., P27, All Trans.	C-Z		A138C
		2000, 2001, 10, 11				P; B7A-9510C, D		55-56 8 Cyl., 260, 270,	C-2	55S, 2262S BBD; 2259S, SA, SB,	A124C
CHEVROLET, Pas	senge	er Carter Equipped						Eng., P27, 29,		60S, SA, SB, 61S,	
50-56 235 Eng; All Tr.	C-1	YF; 966S, 7S, 2101S	A121C			Holley Equipped		All Trans.		SA, SB, 2274S, SA	
55-56 8 Cyl , All Trans	C-2	WGD: 2286S	A179C	49-53 8 Cyl., 239 Eng., 100, 110 H.P.	-2	1BA, 8BA-9510A; EAB-9510C, D, E, F	Al31F	55 8 Cyl., P27, All Tr. 56 8 Cyl., P29, All Tr.		WCFB; 2253S BBD; 2422S, 23S, 24S	A127C
55 8 Cyl., 180 H.P. 56-57 8 Cyl., All Trans	C-4 C-4	WCFB; 2218S, 2351S WCFB; 2366S, SA,	A146C A172C	52-54 8 Cyl., Meteor,	-2	EAB-95104, D, E, F	A60F	56 8 Cyl., 277 Eng.,	C-2	BBD; 2407S, 8S, 9S,	A166C A167C
30-37 0 Cyr, All Frans	Cod	2505S, SA, 55S	ALIEC	120, 125 H.P.		EAC-9510J2		P29, All Trans.		SA	
CHEVROLET, Pas	senge	er Rochester Equip	ped	54 8 Cyl., 239 Eng., All Trans.	-2	EBU-9510B, D, E, F, G, H	A131F	56 8 Cyl., 277 Eng., P29, All Trans.	C-2	BBD; 2299S, 2300S, 01S, 10S	A174C
37-53 216, 235 Eng.		BC: 7003526, 3986,	A123R	55 8 Cyl., 272, 292	-4	B5A-9510G, H;	A132F	57-58 8 Cyl., P31	C-4	WCFB; 2530S, SA	A182C
Aute Choke, All		4478, 95, 4620,		Eng., T'bird,	1.0	ECK-9510D, H. S.		Power Pack.			
Trans \$1-53 216, 235 Eng.,	R-1	4915, 5060 B: 7003863, 65, 4475,	AIZZR	Meteor, Fairlane,		T; ECJ-9510C, D,		57 8 Cyl., P31, All Trans.	C-2		A193C
Man. Choke	K-1	6, 7, 4600	Attent	Sta. Wagon Pow- er Pack		G, H, L, M; B5A-9510M, N, Q, R		trans.		13S, SA, SB, 14S, SA, SB	
54-56 6 Cyl. 235 Eng.,	R-1	BC: 7005921, 22, 82,	A123R		-2	ECG-9510J, K, M,	A130F	PONTIAC, Carter	Fami		1
All Trans		7172, 80, 81, 7200,				N, R; BSA-9510J,		49-54 8 Cyl., All; Can.			A110C
55 8 Cyl., All Trans.	R-2	9254, 5, 9911 2GC; 7005810, 6825,	ATDUR	56 8 Cyl., 292 Eng.,	-4	K, P ECJ-9510N, R, U, V;	A163F	2700; Std. Tr.	0.0	SA SA, 203,	ALLUC
Auto Choke		7171,8004,5,8930,31		Std. Tr., 312	-4	ECZ-9510A, B, G,	Vient	53-54 6 Cyl., All Trans.	C-2		AlliC
56-57 8 Cyl. Std. Trans.	R-2	2GC: 7008387, 9909,	ATIER	Eng., Auto Tr.		H		54 8 Cyl., Auto. Tr., 55 8 Cyl., All Trans.	C-2 C-2	WCD: 2122S	A112C
56-57 8 Cyl. Auto Trans.	R-2	7010647,719,5712,19 2GC: 7008388, 9910;	ATSER	56 8 Cyl., 272 Eng., All Trans.	-2	ECG-9510S, T, U, AL, AM; B6A-	A161F	35 8 Cyl., All Frans.	6-6	WGD; 2182S, SA, SB, 2207S, SA, SB	A139C
ar ar a cynnaid riana	10.00	7010648, 5715	10.00000	All Frants.		9510J, K, R		55-56 8 Cyl., All Trans.,	C-4	WCFB; 2268S, 83S,	A168C
\$7-58 6 Cyl. All Trans	R-1	BC; 7009656, 7;	A192R	57 8 Cyl., 273, 292	-2	ECG-9510AS, AT:	A194F	55 Pow. Pack.		2364S, SA	
		7011102, 2127, 29, 5709, 10, 5809, 10		All Trans.		B7A-9510F; ECJ-		PONTIAC, Roches	ter E	quipped	
58 8 Cyl. Std. Trans.	R-2		A211R			9510AC, AD; EDB- 9510L, M; B7A-		55 8 Cyl., Auto. Tr		2GC; 7006100	Align
		5804				9510G, K		55 Auto, Trans 56 All & Canada 27	R-4	4GC; 7007300, 7800	A147R
58 8 Cyl. Auto Trans.	R-2	2GC; 7012452, 5852	A212R	57 8 Cyl., 312 Eng.,	-4	ECZ-9510V, Y, AC,	A195F	56 All & Canada 27.	R-2	2GC; 7008695, 96, 9907, 8	A169K
CHRYSLER				All Trans.		AD; B7A-9510H		56 All	R-4	4GC; 7008697, 7900,	A170R
SS C67, All Trans	C-2	BBD; 2162S, SA,	A124C	FORD, Passenger	-	The second secon				9905, 6	
SS C67, All Trans	C-2	80S, SA BBD; 2162SB, 80SB	ATESC	32-51 8, 90, 100 H.P.	F-2		A27F	57 All Trans	R-Z	2GC; 7009831, 32; 7015707, 8	Al9IR
56 C71, All Trans	C-2	BBD; 2312S, 13S	A167C	56 8 Cyl., 292, 312 Eng., Std. Tr.	F-4	B6A-9510L, M, N	A163F	SS All Trans	R-2		A210R
57 C75-2, Power	C-4	WCFB; 2589S, 90S	A181C	57 8 Cyl., 272 kng,	F-2	B7A-9510A, E. L.	A196F			5817, 18	1
Pach; C76, 1M-1,				Std. Tr., 292 Eng.,				RAMBLER (See N.	ash)		
2, 3, Auto Trans 57 C75-1, Auto. Tr.	C-2	BBD; 2527S	A193C	All Trans.		AED. DZA OCIAL	A100C	200000000000000000000000000000000000000		ger Carter Equippe	od
DE SOTO				\$7 8 Cyl., 312 Eng., Std. Tr.	C-4	AFB; B7A-9510J; 2441S, SA	A189C	53-55 6 Cyl., Champion.			A143C
49-53 6 Cyl. S13, 14,	C-1	BB; E7L1, 2, 3, 4	A85C	57 8 Cyl., 312 Eng.,	F-4		A197F	54-57 6 Cyl., Champ.,	C-1	WE; 2108S 2190S	A141C
15, 18, Auto Tr.				Auto Tr.				Silver Hawk, Sta.		2417S	
54 6 Cyl. S20, Auto.	C-I	BB; E9B1	A89C	LINCOLN				Wag., Exc. WI, FI 55-58 8 Cyl., All Trans.	C-4	WCFB: 2214S. SA.	A143C
55 S21, All Trans 56 S23, All Trans	C-4 C-2		A126C A174C	55 341 Eng., Auto.	-4	EBJ-9510D, F, G	A132F	Darage of Cyti, Am 1140b.	-	SB, 19S, SA, 2330S,	H. P. T. S. C.
56 S24, All Trans	C-4	WCFB: 2311S, SA	A173C	1 56 368 Eng., Auto	-4	ECU-9510B, C, D	A163F			SA, SB	
57 S26, Auto. Trans.	C-4	WCFB: 25885	A181C	56 368 Eng., Auto	-4	ECU-9510E	A200F	STUDEBAKER, P	issen	ger Stromberg Equ	aipped
		WW; (3-149, 50)	A160S	MERCURY						AAUVB-26; (6-107,	A113S
DODGE, Passenge			1050	\$4 All	-4	EBY-9510G, H, J ECK-9510B, C, D, H, S, T; ECL-9510B;	A97F	Land Cruiser		A, B, C, 111, A, C)	
49-54 D29, 30, 3, 4, 41, 2, 3, 6, 7, 9, FL D	1	BB; D6P1, 2, T1, V1	A95C	55 MC, Montclair, All Trans.	-4	ECK-9510B, C, D, H,	A132F	53-57 8 Cyl., Comm., Pres., Sta. Wag.	5-2		
54 6. DS1, 2. Std.	C-1	BB; E9N1, T1	A101C	An frans.		S, 1; ECL-9510B; B5A-9510G, H				E, F, 113, 15, 16, 17, A)	//
	C-1	BB; E9U1	A95C	56 292 Eng., All Tr.	-4	ECZ-9510A, B, G, H	A163F	WILLYS 4 & 6 Cyl			
54 6, D51, 2, All Tr.	C-1		A85C	56 All, Auto. Trans.	C-4	WCFB; 2361S, SA	A177C	50-57 4 Cyl., 4-73,	C-1		A144C
54 6, D51, 2, All Tr. 54 6, D51, 2, M6, Tr	67 A		A127C	56 292 Eng., All	-4	ECZ-9510L, M;	A200F	4-75 Sta. Wag., Panel Del., 4-75;		938S, SA, 951S	
55-56 8 Cyl. D55,	C-4			Trace		EDR actor					
D55-1, 1,-3, 63-3 55-56 Can. 8 Cyl. D59,	C-4	24325, 745	ATTRC	Trans.	-4	EDB-9510C ECZ-9510V, Y, AC,	A195F	CJ-3B, 5, 6: FJ-5.			
55-56 8 Cyl. D55, D55-1, 1, -3, 63-3 55-56 Can. 8 Cyl. D59, All Trans.	C-4	24325, 745 BBD; 21415, 545, 555, 22625		Trans. 57 312 Eng., All Trans.	-4	ECZ-9510V, Y, AC, AD: B7A-9510H	A195F	CJ-3B, 5, 6: FJ-5.	1		
55-56 8 Cyl. D55, D55-1, 1,-3, 63-3 55-56 Can. 8 Cyl. D59,	C-4	24325, 745 BBD; 21415, 545, 555, 22625	ATIBC A137C	Trans. 57 312 Eng., All	-4 C-4	ECZ-9510V, Y, AC, AD; B7A-9510H	A195F ATRIC		C-2	WCD, 2204S	A145C

For complete listings on all Hygrade carburetor parts refer to Catalogs CM60 & CG61.

—Letters refer to carburetor manufacturer—(R) Rochester; (C) Carter; (S) Stromberg, (H) Holley; (F) Ford. Numbers refer to number of harrels.

# TUNE-UP DATA ON 1953-1958 CARS

			VAL	VES			GNITI	ON			Qts.		CRA	INK-		FRONT A)	(LE	
MAKE	No. of Cylinders.	t Clearance ning (In.)	C. Deg.	Tar	rating spett nce (In.)	Spark P	iug	Tim	ing	y (Qts.	Capacity							1
AND MODEL	Bore and Stroke (In.)	Inlet Tappett Clear for Valve Timing (	intake Valve Opens Before or After T.C.	Intake	Exhaust	Make and Model	Gap (In.)	Spark Occurs No. Deg. Before or After T.C.	Breaker Gap (In.)	Crankcase Capacity	Cooling System Ca	Compression Ratio (Standard Head)	Diameter (In.)	Length (In.)	Caster (Deg.)	Camber (Deg.)	Tse-in (in.)	Kingpin Indination
5540         1955           5560, 5580         1955           5640, 5660         1956           5680, 5688         1956           57L         1957           58L         1958           58L-K         1958	8-311x312 8-4x312 8-4x312 8-4x312 8-314x312 8-314x318 8-314x318 8-314x318	030	148 148 148 148 118 118 118	AA AA AA 024H 024H 024H	AA AA AA 024H 024H 024H	(g) Ch-H-10 Ch-N-18 Ch-N-18 Ch-H-10 Ch-H-18Y Ch-H-18Y	035 035 035 035 036 036	68 68 58 10B 4B 4B 4B	016 016 016 016 016 016 016	8555555	26 26 26 26 26 17 17	8 50 8 50 9 50 10 00 7 50 8 30 7 80	214 214 214 214 214 2	Management of the second	12N to 112N 12N to 112N 12N to 112N 12N to 112N 1N to 212N 1N to 212N 1N to 212N	14N to 14P 14N to 14P 14N to 14P 14N to 14P 0 to 1P 0 to 1P 0 to 1P	0 to 15 0 to 15 0 to 15 0 to 15 0 to 15 15 to 16 15 to 16	5°5 5°5 5°5 6
PLYMOUTH P-24 1953 P-25 (Early) 1954 P-25 (Late) 1954 P-26 1955 P-27 1955 P-27 1955 P-27 1955 P-28 1956 P-29 1956 P-29 1956 P-29 1956 P-29 1956 P-30 1957 P-31 1 1957 P-31 1 1957 P-31 Fury 1957 LP1 1958 LP2 1958 LP2 1958 Golden Commando 1958	6-31 x44	014	12B 12B 12B 12B 14B 14B 14B 14B 14B 14B 14B 14B 14B 17B 18B 17B 17B 15B	010H 010H 010H 010H AA 010H AA 012H 010H 010H 008H 008H 008H 012H 012H	010H 010H 010H 010H AA AA 010H AA 020H 018H 010H 018H 018H 018H 018H	AL-AR8 AL-4S-140 AL-4S-140 AL-4S-165 AL-4S-165 AL-4R-80 AL-AR-82 AL-AR-52 AL-AR-51 AL-AR-52 AL-AR-32 AL-AR-31 AL-AR-31 AL-AR-34 AL-AR-32 AL-AR-32 AL-AR-32	035 035 035 035 035 035 035 035 035 035	28 28 28 28 48 48 48 48 7C 48 88 88 28 108 108	020 020 020 020 018 018 020 017 017 017 017 017 017 017 017 017	5555555555555555	13 13 14 13 19 19 13 19 20 20 20 20 20 20 20 13 20 20 16	7 10 7 10 7 25 7 40 7 80 8 00 9 25 8 00 8 50 9 25 8 00 8 50 9 25 8 00 9 25 8 00 9 25 8 00 9 25 8 00	222211222222222222222222222222222222222	1	IN to 1P IN to 1P IN to 1P O to 2N O to 11	\$4N to \$4P \$4N to \$4P	0 to	55.55.55.55.55.66.66.66.66.66.66.66.66.6
ONTIAC 25 1953 27 1953 25 1954 27, 28 1954 27, 28 1955 27, 28 1955 27, 28 1955 27, 28 1955 27, 28 1955	6-3 % x4 8-3 % x3 % 6-3 % x3 % 8-3 % x3 % 8-3 % x3 % 8-3 % x3 % 8-3 % x3 % 8-4 % x3 %	015C 015C 015C 015C ER ER	121-28 58 121-28 58 228 228-228-228 228	012H 012H 012H 012H AA AA AA	012H 012H 012H 012H AA AA AA	AC-44-5 AC-44-5 AC-44-5 AC-44-5 AC-44-5 AC-45 AC-45 AC-45	026 026 026 026 036 036 038	TC 68 38 68†† 58 58 68	022 016 016 016 016 016 018 018	5 5 5 5 5 5 5 5 5	1815 1912 1815 1834 24 2234 2134 2114	7 00** 6 80** 7 00** 6 80** 8 00 8 90 8 50 8 60	214 214 214 214	14	N to 11-N	14P to 14P 14P to 14P 0 to 1P 0 to 1P 0 to 1P 0 to 1P 0 to 1P 0 to 1P	0 to 1: 0 to 1: 0 to 1: 0 to 1: 0 to 1: 0 to 1: 0 to 1:	814 514 112 112 415
AMBLER 5310 1953 5310** 1953 5410 1954 5410** 1954 5510 1955 5610 1955 5610 1955 5720 1857 5730 1957 5730 1957 5801 1958 5820 1958 5820 1958	6-314x414	015 015 015 015 015 015 020 020	10B 10B 10B 10B 10B 121 B 121 B 121 B 121 B 121 B 121 B	015H 015H 015H 015H 012H 012H 012H 012H 012H 012H 012H 012	015H 015H 015H 015H 016H 016H 014H 014H 014H 016H 014H AA	AL-A7A AL-A7A AL-A7A AL-A7A AL-A7A AL-7J3 AL-7J3 AL-7J3 AL-7J3 AL-7J3 AL-7J3 AL-7J3 AL-7J3	030 030 030 030 030 030 035 035 035 035	4B 4B TC 4A 4A TC TC 5B 5B 5B 5B 5B	022 022 022 022 022 016 016 016 016 016 016	4 4 4 4 5 5 5 4 4 4 4	11 11 11 10 10 20 19 11 11 10 20 19	7 25 7 30 7 25 7 30 7 30 7 30 7 47 8 25 6 00 9 50 8 00 8 70 8 70 9 70	2 h 2 h 2 h 2 h 2 h 2 h 2 h 2 h 2 h 2 h	Charles of Albanda Charles of Al	14P to 114P 0 to 114P	P to P P P to P To P P To	经 10 经经 10 经 10 经 10 经 10 经 10 经 10 经 1	8 8 8 6 1 6 1 6 1 8 6 1 8
TUOEBAKER  14G 1953 4H 1963 15G 1954 5H, 5HY 1954 16G6 (Early) 1955 16G8 (Late), 6H 1955 56B 1 1956 56H 1956 56J 1957 57B 1987 57B 1987 57H 1987 58B 1988	6 3x4 6 3x4 6 3x4 8 35x3 8 35x3 8 35x3 8 35x3 8 35x3 8 37x3 8 37x	020 030 030 030 030	15B 11B 15B 19B 11B 11B 11B 11B 11B 11B 11B 11B 11	016C 022H 016C 022H 016C 024H 024H 016C 024H AA 016C 024H 024H 024H 016C 024H 024H 016C	016C 022H 016C 022H 016C 024H 024H 016C 024H 016C 024H 024H 024H 024H 024H 024H	Ch-J-7 Ch-H-10 Ch-J-7 Ch-H-11 Ch-H-18-Y	025 035 031 036 031 036 036 031 036 036 036 036 036 036	28 48 26 48 28 88 48 48 28 48 48 26 46 46 46 46 46 46 46 46 46 46 46 46 46	020 018 020 013 020 013 013 016 020 016 015 020 018 018 020 016 016 020 016	565656655555555555	10 17'1 10 17'1 10 17'1 17'1 17'1 17'1 1	7 00 7 00 7 50 7 50 7 50 7 50 7 50 7 80 7 80 7 80 8 30 7 80 8 30 7 80 8 30 7 80 8 30 7 80 8 30 7 80	1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	the same of the second control of the first observation of the second observation observation of the second observation of the second observation observation observation observation observation of the second observation obse	1% N to % P 1% N to % P 1% N to 22 N 1N to 22 N	0 to 1P 1N to 1P 0 to 1P	古代市市市市市市市市市市市市市市市市市市市市市市市市市市市市市市市市市市市市	808888888888888

# FOOTNOTES AND ABBREVIATIONS Off seat. Same as series 50 and 70 when hydraulic valve lifters are used. -13½ when equipped with Dynaflow transmission and the contract of the

- transmission.
   18 when equipped with Dynaflow
- transmission.

  --Powerglide chassis model available at

- \$\|\\_0.08\] with two four-barrel carburetors.
  \$\(\delta 018\] with two four-barrel carburetors.
  \$\(\delta 018\] with optional camshaft for std.
  trans.
  \$\(\delta 08\) with Prodomatic or Mercomatic.
  \$\(\delta 27\) B with Hyrdamatic.
  \$\(\del

- (k)-8.40 with overdrive; 9.00 with
- (k)—8.40 with overdrive; 9.00 with Fordomaie.
  A—Atter.
  A—Atter.
  A—Automatic adjustment with hydraulic valve lifters.
  AC—A. C. Spark Plug Div.
  AL—The Electric Auto-Lite Co.
  B—Before.
  C—Cold.
  Ch—Champion Spark Plug Co.
  ER—End of ramps used for valve timing.
  H—Hot.
  N—Negative.
  NU—Not used.
  P—Positive.
  TG—Top center,
  VTS—Valve train solid.

# FOREIGN PASSENGER CARS \ 1958

			ENGI	WE									GI	ENER	AL DAT	A					REAR				
	23	Hp. at	*		and					TR	EAD	DIM	ERAL ENSIG	L			Used			Speeds	0		nelen		44)
MAKE AND MODEL	Number of Cylinders Bore and Stroke (In.)	Maximum Brake I Specified R.P.M.	Piston Displacement (Cu. In.)	Compression Ratio	Cylinder Arrangement	Valve Location	Piston Material	Camstaft Drive	Wheelbase (in.)	Front (In.)	Rear (In.)	Length Including Bumpers and Bumper Guards	Width	Height Read to Roof, No Load	Tires (In.)	Oil Pressure to-	Carbureters—No. and Type	Coeling System	ting Methac	No. of Forward Sp Final Drive Type	Gear Ratio (To -1)	Torque Taken By	Independent Susper	Service Brakes	Shinning Walaht
SREAT BRITA	IN																								
	6-2.58x3.94 8-2.60x3.78 6-2.57x3.74	90-4500 105-5006 120-6600	121.5	8.50	IL	IH IH	AA	Ch	90.0	50.	0 50.	160.0	61.0	52.0	5.50/16 5.50/16 5.50/16		3	Pu TP	HS HS	4 Hy 4 Hy 4 Hy	3.64 3.64 3.90	Sp	FR	HHH	17
Ivis T. C. 106/G		104-4000	1			IH	AA	Ch							6.00/15			Pu	HS	4 Hy	3.77	Sp	Fr	Н	3
rmstrong-Siddeley 346 Limousine Saloen	6-3.54x3.54	125-4700 125-4700 150-5000	209.6	7.00	IL.	IH	AA AA	Ch Ch	132.0	58.	6 57.	5 212.0	72.1	0 66.6	6.70/16 7.00/16 6.70/16	abcde	1-Do		(1)	4 Hy 4 Hy 4 Hy	4.09 4.45 4.09	Sp Sp	Fr Fr	H	343
ston-Martin DB Mk. III		162-5500	178.2	8.20	IL	IH	AA	Ch	99.0	54.	0 84.	171.6	65.	53.1	6.00/16	abe	2-SH	Pu	HS	4 Hy	3.77	Sp	Fr	н	2
ustin A-35 A-55 A-85 A-105 Princess IV	4-2.88x3.50 6-3.13x3.50	34 4750 51 4250 92 4500 102 4600 150 4100	90.8 161.0 161.0	8.30 8.30 8.30	IL IL IL	HHHH	AA	Ch	99.1 105.8 105.8	48. 51. 51.	5 49. 5 51. 5 51.	0 166.9 3 180.8 3 180.8	61. 64.	60.: 0 62. 0 62.	5.29/13 5.20/13 5.20/13 6.40/15 6.40/15 8.50/16		2	Pu	HS HS HS HS	4 Hy 4 Hy 4 Hy 4 Hy 4 Hy	4.55 4.30 4.11 4.11 4.09		Fr Fr Fr Fr	HHHHH	4
ustin-Healey 100-6	6-3.13x3.50	120-5000 132-4700				IH		Ch	92.0	48.	8 80.	0 157.8	60.	5 49.1	5.90/15 0 5.50/15	abce	2-SH 2-St	Pu	HS?	4 Hy 4 SB	3.91		Fr Fr	H	4
entley S Series Saloon Continental Sports Saloon	6-3.75x4.50 6-3.75x4.50		298.0 298.0	8.00	IL IL	FFF	AA AA	HG HG HG	123.0 123.0	58.	0 60. 0 60.	0 212.0 0 210.5	74.	8 64. 0 62.	0 8.20/15 0 8.00/15 0 8.00/15	abcde abcde	2-SH 2-SH	Pu Pu Pu	Au Au Au	4 Hy 4 Hy 4 Hy	3.42 2.92 2.92	Sp Sp	Fr Fr	HM	
erkeley. Talisman Twin Talisman III	2-2.28x2.42 3-2.26x2.42	18-500E 30-5500				N N	AA AA	N N							5 5.20/12 5 5.20/12		1-St 3-5t	AC AC	HS HS	3 Ch 4 Ch	2.23		FR	H	ı
	2-2.60x2.44	12-3500 75-4500	25.1	7.00	но	IH	AA	SG Ch	93.1	5 49.	6 49.	6 148.8	58.	3 63.	0 4.90/15 0 6.50/15	abce	1-9D 1-DD	AC Pu	HS HS	4 58 4 58 <sup>3</sup>	3.87	Sp3		H	
aimler Conquest Century 104 Regina	6-3.25x4.25	137-440	211.	7.60	IL.	IH	AA AA	Ch Ch Ch	114.	0 56.	0 57.	0 193.0	71.	0 62.	0 5.00/15 5 6.50/16 0 7.50/16	abce	2-Hs 2-Ho 2-Ho	Pu Pu Pu	Pr Pr Pr	4 Hy 4 Hy 4 Hy	3.73 3.92 4.27	Sp	Fr	MH H	4
airthorpe Atomota Electron Minor FWA	2-2.76x3.31 4-2.47x2.90 4-2.85x2.63	38-800	0 57.	8 8.25	IL	IH	AA	SG Ch Ch	81.	0 49	0 48.	5 132.0	58.	0 46.	0 5.20/13 0 5.90/13 0 5.20/15	abce	1-St 1-SD 2-St	AC Pu Pu	HS HS	4 Hy 4 Hy 4 Hy	4.55 4.55 4.10		Fr Fr Fr	H	
Prefect De Luxe	4 - 2.50 x 3.64 4 - 2.50 x 3.64 4 - 2.50 x 3.64 4 - 2.50 x 3.64 4 - 3.25 x 3.13 6 - 3.25 x 3.13	36 450 36 450 36 450 61 440 90 440	0 71.0 0 71.0 0 71.0 0 71.0 0 103.0 0 155.0	5 7.00 5 7.00 6 7.00 6 7.00 9 7.80 9 7.80		LLLLE	AS	Ch Ch Ch Ch Ch	87. 87. 87. 104. 107.	0 48 0 48 0 48 0 48 5 53 0 53	0 47 0 47 0 47 0 47 0 52 0 52	5 149.4 5 141.4 5 151.3 5 141.4 0 172.4 0 178.4	60. 60. 60. 60. 60. 68.	8 58. 8 62. 8 58. 8 62. 6 61. 9 62.	8 4.50 17 8 5.20 13 8 5.60 13 8 5.60 13 8 5.60 13 5 5.90 13 0 6.40 13 0 6.40 13	abcde abcde abcde abcde abcde abcde	1-SD 1-SD 1-SD 1-SD 1-Do	TS Pu Pu Pu Pu Pu Pu Pu	HS HS HS HS HS	3 SB 3 SB 3 SB 3 SB 3 SB 3 Hy 3 Hy 3 Hy 3 Hy	5.50 4.43 4.43 4.43 4.11 3.90 3.90	Sp Sp Sp Sp Sp	N Fr Fr Fr Fr Fr	MHHHHH	
razer-Nash Continental Turismo Sebring	6-2.60x3.78	106 575	0 120.	7.25	. IL	IH IH	133		. 96.	0 48	.0 50 .0 50	156.0 0 156.0 0 156.0	62.	0 51.	6.00/16 0 5.50/16 0 5.50/16		3		HS HS	4 SR 4 SD	3.50 3.66 3.66		FR	HHH	
tillman Husky	4-2.56x3.74 4-3.00x3.00 4-3.00x3.00	38-416 47-440 51-440	0 85. 0 84.	0 7.0 3 8.0	O IL	114	AA AA AA	Ch Ch Ch	93.	0 48	.6 50	5 164.	63.	5 67. 8 59.	0 5.00 15 5 5.50 15 5 5.00 15 5 5.60 15	abce	1-De 1-SD 1-De 1-SD	Pu Pu Pu Pu	HS HS HS	4 SB 4 SB 4 SB	4.78 5.22 4.78 4.78	Sp Sp	Fr Fr Fr	TILI	
lumber. Hawk Series			0 120.	2 7.5	0 IL	IH	AA	Ch	110.	0 56	. 0 58	5 184.	89.	8 61.	0 6.00/10	abce	1-De	Pu	HS	4 Hy	4.21	Sp	Fr	н	
setta 300cc/57						1 **	I AA	Sh	58.	0 47	. 2 20	4 89.	54.	3 52.	6 4.40/10	abse	1-SD	AC	HS	4 Ch	6. 25	Sp	Fr	н	
aguar 2.4 Litre XK 150 FH Coupe XK 150 FH Coupe SE MK VIII 3.4 Litre	6-3.27x4.17 6-3.27x4.17	190 550 210 550 210 550	6 210. 0 210. 0 210.	0 8.0 0 8.0 0 8.0	O IL	11-	AT AT AT AT AA	Ch Ch	102. 102. 120.	0 51 0 51 0 56	.5 51 .5 51 .5 58	.5 176. 5 176. 0 196.	0 64 0 64 5 73	5 55. 5 55. 0 63.	5 6.46/15 0 6.00/16 0 6.00/16 0 6.70/16 5 6.40/15	abcde abcde abrde	2-SH 2-SH 2-SH	Pu Pu	HA		3.54 3.54 4.27	Tal Sp Sp Sp TA	Fr Fr	TITI	
ensen 541 Interceptor 541-F	6-3.43x4.37 6-3.43x4.37 6-3.39x4.33	130-400	0 243. 0 243. 0 243.	0 6.8 0 6.8 0 7.8	O IL O IL	110	AA AA AA	Ch	105. 112. 105.	0 52 0 54 0 51	.0 52 .0 57 .9 53	.0 174. .0 188. .0 178.	0 63 0 68 0 63	0 53 0 58 0 53	0 6.00/16 0 6.00/16 0 6.40/15	ahee abce abcde	3-SU 1-Do 2-De	TP Pu TP	HS HS	4 Hy 5 Hy 4 Hy	2.90 3.77 3.50		Fr Fr	HHH	
Cieft FW/						1	AA .	1						1	0 5.00/15		2-St	Pu	HS	4 Hy	4.30			M	
agenda . 3 Litre Saleer Meadews Friskysper	2-2-22x2-48	17-550		-	7	II-	AA AA		1						0 6.00/10		2-Ho 1-SH	Pu	HS	4 Hy	4.50	TA	-	H	
Frisky	2-2.22x2.48	17-550	0 19.	8 7.2	5 IL	N	AA	N							0 4.46/10		1-SH	AC	HS	4 Ch		TA	Fr	н	
Metropolitan 1500							I AA	1			-		-	-	.5 8.20/13		1-Do	Pu	HS	3 Hy	4.23	-		Н	
M. G Magnette Series MG/	4-2.88x3.50 4-2.88x3.50	72-550	NO 90.	9 8.3	O IL	11	AA B		94	0.47	.0 51	.0 169.	0 53	0 58	.0 5.50/15	abce	2-55d 2-55d			4 Hy 4 Hy		50 30	Fr	H	4

# 1958 / FOREIGN PASSENGER CARS

			ENGI	NE										G	ENE	RAL DAT	TA						REAR				
	£3	Hp. at	#		ent					T	REAL	0	DIMI	ERA ENSI				Used			Speeds		6	-	Suspension		(41)
MAKE AND MODEL	Number of Cylinders Bore and Stroke (In.)	Maximum Brake H Specified R.P.M.	Piston Displacement (Cu. In.)	Compression Ratio	Cylinder-Arrangement	Valve Location	Piston Material	Camshaft Drive	Wheelbase (In.)	Front (In.)		The state of the s	Bumpers and Bumper Guards	Width	Height Road to Roof, No Load	Tires (In.)	Oil Pressure to-	Carburelors—No. and Type	Cooling System	Shifting Methed	No. of Ferward Sp.	Final Drive Type	Gear Ratio (To	Torque Taken By	Independent Suspe	Service Brakes	Shipping Weight (
GREAT BRITA	IN—cor	tinue	d												-												
Morgan 4/4 Series 2 4/4 Ser. 2 Competition	4-2.50x3.64 4-2.50x3.64 4-3.35x3.62		71.6 71.6 127.6	8.00	IL		AA AA AA	Ch Ch Ch	96.0	0 47. 0 47.	0 47	0 1	44.0 44.0	56.0	50.0	5.00/16 5.00/16 5.25/16 5.25/16	abce abcde	1-Do 2-St 1-Do 2-St	TP TP Pu Pu	HS HS HS	3 1 4 1 4 1	Hy	4.44 4.44 3.72 3.72	Sp Sp	Fr Fr Fr	HHH	143 143 170 170
Morris Minor 1000 Cowley 1500 Oxford Series III Isis Series II	4-2.88x3.50	37-4800 55-4400 55-4400 90-4500	90.9	8.30	IL IL		AA	Ch Ch Ch	97.6	53. 53.	5 53. 5 53.	0 1	71.0 71.0	65.0	63.0	5.00 14 5.80 15 5.60 15 6.40 15	abce	1-SSd 1-SSd 1-SSd 1-Sd	Pu	HS HS HS	4 1	4y	4.55 4.88 4.88 4.10	Sp Sp Sp Sp	Fr Fr Fr	HHHH	170 236 236 284
Riley 1.5 2.6	4-2.88x3.50	68-5400 101-4500					AA	Ch								5.00 14		2-SSd 2-St	Pu	HS HS	4 9		3.73	Sp Sp	Fr Fr	H	197
Rolls-Royce Silver Cloud Silver Cloud Silver Wraith	6-3.75x4.45 6-3.75x4.50		298.0 298.0	8.00	IL	FF	AA AA	HG HG	127.0	0 58.	0 60	0 2	16.0	74.1	64.0	8.20 15 8.20 15 7.50 16	abcde	2-SH 2-SH 2-SH	Pu Pu Pu	Au Au Au	4 1	dy	3.42 3.42 4.25	Sp Sp	Fr Fr Fr	HM	428 444 (4)
Rover 60 75 90 105-S 105-R	6-2.88x3.50	60 4000 80 4500 93 4500 108 4250 108 4250	121.8 136.0 160.9 160.9	6.90 7.20 7.50 8.50	IL IL IL		AA AA AA AA	Ch Ch Ch	111.0 111.0 111.0	0 52. 0 52. 0 52.	0 51 0 51 0 51	5 1	78.2 78.2 78.2	65.6 65.6	63.7 63.7 63.7	6.00 15 6.00 15 6.00 15 6.00 15 6.00 15	abce abce	1-SH 1-SH 1-SH 2-SD 2-SD	Pu Pu Pu Pu Pu	HS HS HS	4 5 4 5 4 5 2 5	818	4.30 4.30 4.30 4.30 4.70	Sp Sp Sp Sp	Fr Fr Fr Fr	H HV HV	304 319 320 331 335
Singer Gazelle Series II.		53-4500					AA	Ch								5.60/15		1-Do	Pu	HS	4 5			Sp	Fr	н	227
Standard Eight Ten Pennant Ensign Vanguard Sportsman	4-2.48x2.99 4-2.48x2.99 4-2.99x3.62 4-3.35x3.62	33-5000 37-5000 37-5000 60-4000 68-4200 90-4500	57.8 57.8 102.0 127.6	8.00 8.00 8.00 7.50	エルニュ	H	AA AA AA AA	Ch Ch Ch Ch	84.1 84.1 102.1	0 48. 0 48. 0 51. 0 51.	5 48 5 48 5 51 0 51	51	45.0 47.0 71.5 72.0	58.5 58.6 67.5 67.5	5 59.0 5 59.0 5 60.0 5 60.0	5.20 13 5.20 13 5.60 13 5.90 15 5.90 15 5.90 15	abce abcde abcde	1-SD 1-SD 1-Do 1-Do 1-SD 2-St	Pu Pu Pu Pu Pu	HS HS HS HS	4 1 4 1 4 1 3 1 3 1	Hy Hy Hy	4.55 4.55 4.55 4.10 4.30 4.55	\$9 \$9 \$9 \$9 \$p \$p	Fr Fr Fr Fr Fr	IIIIII	156 161 162 246 256 268
Sunbeam Rapier		67-5400					AA	Ch		100						5.60/15	-	2-SD	Pu	HS	4 5		5.22		Fr	н	228
Triumph Sedan Sports	4-2.48x2.99 4-3.27x3.62	37-5000 100-5000					AA AA	Ch								5.20/13 6.50/15		1-Do 2-Ho	Pu Pu	HS HS	4 1		4.55	Sp Sp	Fr Fr	H	200
Vauxhall Victor Velox Cresta	4-3.13x3.00 6-3.13x3.00 6-3.13x3.00	52-4000 78-4200 78-4200	138.0	6.80	IL.	IH	AA AA AA	Ch Ch	98. 105. 105.	0 50 . 0 54 . 0 54 .	0 50 0 54 0 54	.01	67.5 77.7 77.7	62. 68. 68.	5 58.4 5 58.4 5 58.4	5.60/13 6.40/13 6.40/13	abce abce	1-De 1-De 1-De	Pu Pu Pu	HS HS HS	3 1	Hy	4.13 4.11 4.11	Sρ Sρ Sρ	Fr Fr	HII	212 248 252
Wolseley	4-2.88x3.50	50-4200 55-4400 97-4750	91.0	8.30	H.	IH	AA AA	Ch Ch	102.	0 50	6 51	.0 1	73.0	61.	0 60.0	5.00 14 5.60 15 6.40 15	abce	1-8d 1-85d 2-8H	Pu Pu Pu	HS HS	41	Ну	3.73 4.88 4.10	Sp	Fr Fr Fr	HHH	250 324
AUSTRALIA																											
Holden FE 217 FE 219	6-3.00x3.13 6-3.00x3.13	70 4000 70 4000	132.5 132.5	6.80	IL IL											6.40/13 6.40/13			Pu Pu	HS HS	3 1		3.89		Fr Fr	H	232 251
AUSTRIA												1															
Steyre-Daimler-Puch2000 2300 Sport	4-2.50x2.59 4-3.51x3.43	86 4800 95 4300				IH	AA AA	Ch								6.40/14 6.40/14		1- 1-DD	Pu Pu	HS HS	5 1	Hy Hy	4.63 4.10	Sp	Fr Fr	H	264 266
CZECHOSLOV	AKIA											1															
S-1201 450 Roadster	4-2.84x2.96 4-2.84x2.96	40 4200 45 4200 45 4200 50 6500 100 4800	74.4 74.4 66.5	7.00 7.00 8.40	ILIL	H	AA	Ch	94.	5 47 8 49	6 49	.31	60.5	66.	0 56.4 5 59.1	5.50 15 5.50 15 6.00 15 5.50 15 6.50 15	abce		Pu Pu Pu Pu Pu	HS HS HS HS	4 4 4 4	88 88 88	4.78 4.78 5.25 4.78 4.70	TA TF	FR FR FR FR	IIIII	197 197 228 197 318
FRANCE							-			-		-															
Bugatti							AA								1	6.00/17				HS	4			TA	N	H	
Citroen 2CVAZ ID-19 DS-19	4-3.10x3.90 4-3.07x3.94	12-3500 63-4500 75-4500	116.4	6.80	IL	IH T	AA AS	Ch Ch	122	0 58	5 50	.71	189.0	70.	5 58.6	0 4.90/15 0 6.50/15 0 ( <sup>S</sup> )		1-Do 1-Do 1-DD	Pu Pu	HS HS	4	5B3 5B	4.84 3.89 3.89	TA	FR FR	HHH	107 242 246
Facel-Vega Typhoon		380	44.0	2.42	٧	***			1	1	1					6.70/15		1-FB		Au	4	Ну	3.31		Fr	HV	388
Panhard Cabriolet Dyna 58	2-1.78x2.83	42-5000 42-5000	14.2	7.25	но	IH		N	101.	4 51	2 51	.2	79.9	63.	0 57.	2 5.70/15 1 5.70/15	N	1-DD 1-DD	AC	HS	4				FR	H	111
Peugeot 203 403	4-2.92x2.84 4-3.12x2.85	45 58		7.10	IL	IH		100	101.	0 52 0 52	8 52 8 52	.0	71.0 176.0	63. 65.	5 59.1 8 58.1	0 6.00/15		1-Do		HS		Wo Wo	1.0.0	113	Fr	H	177

For abbreviations see page 84

# FOREIGN PASSENGER CARS—continued

			ENGI	NE									GI	ENER	AL DAT	A						REAR				
MAKE	in.)	Hp. at	Ti.		ment					TR	EAD	DIMI	(In.)			-	Used			Speeds		-1)		Suspension		(47
MODEL	Number of Cylinders Bore and Stroke (In.)	Maximum Brake Specified R.P.M.	Pistan Displacement (Cu. In.)	Compression Ratio	Cylinder Arrangement	Valve Location	Piston Material	Camshaft Drive	Wheelbase (In.)	Frent (In.)	Rear (In.)	Length Including Bumpers and Bumper Guards	Width	Height Read to Roof, No Load	Tires (In.)	Oil Pressure te-	Carbureters—Ne. and Type	Cooling System	Shifting Methed	No. of Forward Sp	Final Drive Type	Gear Ratio (Te	Terque Taken By	Independent Susp	Service Brakes	Shipping Weight
FRANCE—con	tinued																									
Renault R-1062 Series R-1090 R-1091 R-1103 R-1104	4-2.28x3.15 4-2.28x3.15 4-3.46x3.46	26 4300 30 4250 38 5000 77 4000 80 4000	51.5	7.25	IL	IH IH	AS	HG HG HG	89.5 89.5 110.2	49. 49. 55.	3 48.0 3 48.0 1 55.1	155.6 155.6 185.0	60.0 67.1	56.8 56.8 63.0	5.00/15 5.00/15 5.00/15 6.40/15 6.40/15	abce abce abce	1-SD 1-SD	Pu	HS HS HS HS	3 4 4	SB SB Hy	4.71 4.37 4.37 3.89 3.89		FR FR	HHH	1257 1340 1340 2860 3042
Rovin 3CVCD4	2-2.76x2.38	13-3200	28.2		но				71.6	38.	38.	124.0	45.3	49.3	3.50/10		1-SU		HS	3			Sp	FR	M	
Simca Ariane Vedette	4-2.88x2.92 8-2.58x3.34	48 4800 84 4800	78.6	6.70	IL.			Ch							6.40/13		1-SD 1-DD	Pu Pu	HS	4			Sp Sp	Fr		235
Talbot 2.5cc Lago Amer.							AA	Ch		1		1	1	1	6.00/16		1-00		HS			3.92		Fr		220
GERMANY Auto Union AU 1000 AU 1000 Sp	3 2.88x2.96 3 2.88x2.96	44 4500 50 4500	59.8	7.25	IL IL	N N	AA AA	N							5.60/		1-Do 1-Do		HS HS	4 4				Fr Fr	H	,,,,
BMW Isetta Export 300 Kleinwagen BMW 600 502-3, 503-3, 507	1-2.83x2.87 2-2.91x2.67 8-3.22x2.95 8-3.22x2.95	16 5200 23 4000 140 4800 162 4800 173 5000	35.7 193.0 193.0	6.50 7.20 7.30	HO V	IH		Ch Ch Ch	66.1 111.6	48. 52. 55.	0 45. 3 55. 0 55.	7 114.0 7 186.0 9 187.0	55. 70. 67.	2 54.1 0 60.1 0 56.	7 4.80/10 3 5.20/10 3 6.40/15 4 6.00/16 3 6.90/16	abcde abcde	2-DD	AC AC Pu Pu	HS HS HS HS	4444	Ch BG	2.31 5.43 3.89	TA TA	FR	H	77 113 310 325 277
	4-2.92x3.30	60-4700 75-5200	91.0	7.20	IL	IH	AA	SG SG	101.	52.	0 53.	0 171.6	66.	5 57.	5.90/13 5.90/13	abce	1-Do 1-Do	Pu	HS	4	Hy	3.90	Sp	FR	н	220
DKW 3-6		40-4250		1		N	AA	N							5.60/15	1	1-De	TS	HS		Sth	4.72		FR	н	170
Ford Taunus 12M Taunus 15M Taunus 17M	4 2.50x3.64 4 3.23x2.79 4 3.31x3.02	43 4250 80 4500 67 4400	91.4	6.50	IL.	L	AS AS AS	HG HG	98.	0 48.	0 48.	0 180.0	62.	2 61.	5.60/13 5.60/13 5.90/13	abce	1-SD 1-SD 1-SD	Pu Pu Pu	HS HS	3	Hy Hy Hy	4.44 4.11 3.90	Sp	Fr Fr	HHH	181 190 214
Geliath 1100			66.1	8 7.30	но	IH			89.	4 50.	8 49.	2 160.0	64.	0 87.	5.60/13		1-Do		HS	4	BG3	4.71		Fr	н	186
Lloyd 600 Alexander			34.	6.00	IL	114	AA	Ch			1				1 4.25/15	1	1-De	AC	HS	4	HSg <sup>2</sup>	4.87	Sp	FR	н	119
Merceden-Benz 180D 180A 190 219 220S 1903L 3006L	4 3.34x3.29 4 3.34x3.29 6 3.16x2.86 6 3.16x2.86 4 3.34x3.29 6 3.34x3.47	74 4700 84 4800 100 5000 120 5200 120 5800 180 5500	0 115. 0 115. 0 134. 0 134. 0 116. 0 183.	7 6.86 7 7.56 0 8.76 0 8.76 7 8.56 0 8.56	11 11 11 11 11 11	IH IH IH	AA AA AA AA AA	Ch	104. 104. 108. 111. 94.	3 56. 3 56. 3 56. 5 56. 5 56.	9 57. 3 57. 3 57. 3 57. 3 57. 3 60.	5 175.0 9 176.0 9 183.1 9 185.0 9 166.0 0 204.3	68. 68. 68. 68. 68. 73.	5 61. 5 61. 5 61. 5 61. 5 52. 2 64.	4 6.40/13 4 6.40/13 4 6.40/13 4 6.40/13 4 6.70/13 0 6.40/13 0 7.60/15 2 6.70/15	abcde abcde abcde abcde abcde	1-Do 1-Do 1-Do 2-Do 2-	Pu Pu Pu Pu Pu Pu	HS HS HS HS HS	4 4 4 3	Hy Hy Hy Hy Hy Ch	3.70 3.90 4.10 4.10 4.10 3.90 5.11 3.89	TA TA TA TA TA	FR FR FR FR FR	H H H H	24: 23: 24: 25: 27: 23: 41: 27:
Opel Olympia, Rekord	4-3.15x2.91	51-4200 81-4000	90.	6.9	IL	IH	AS AS	HG	100	0 49.	6 50.	0 174.0	63.	6 58.	7 5.60/13	abcde	1-Do	Pu	HS	3	Hy	3.90		Fr	H	19
Porsche 356A/18005						1		HG	1	1	1				4 6.40/13 5 5.60/15		2-Do	Pu	HS	1	SB	4.43	1		н	18
Volkswagen 1/11 1/14 2/22	4-3.03x2.52 4-3.03x2.52	36-370 36-370	0 72.	7 6.6	9 HC	) IH	AS AS AS	HG HG	94. 94.	5 51. 5 51.	4 49.	2 160.2 2 163.0	8 64.	6 50. 2 52.	1 5.60/15 2 5.60/15 5 6.40/18	abc abc	1-SD 1-SD	AC AC AC	HS HS	4	SB SB SDR	4.40 4.40 6.20	TA	FR FR	(6) H	15 16 23
Zundagp	2-2.61x2.73	14-500	0 29.	2 6.7	0 .	N	AA	N	71.	2		114.6	55.	2 55.	1 4.40/12	abd	1-St	AC	HS	4	SB	2.89		FR	н	9
ITALY Alfa-Romeo																										
Giulietta Sedar	4-3.25x3.40 4-2.92x2.96 4-2.95x2.95 4-3.32x3.47 4-3.33x3.46 4-2.92x2.96 4-2.92x2.96	65 -440 65 -600 85 -600 90 -480 90 -520 90 -600 100 -600 105 -530 115 -550 115 -550	0 114. 0 78. 0 78. 0 120. 0 120. 0 78. 0 78. 0 197. 0 301. 0 120.	9 7.0 7 8.0 7 8.0 5 7.5 5 7.5 7 9.0 0 9.8 0 8.2 5 8.0	0 IL 0 IL 0 IL 0 IL 0 IL 0 IL 0 IL 0 IL		AA AA AA AA AA AA AA AA	Ch Ch Ch Ch Ch Ch	86. 83. 103. 103. 86. 93. 85. 103.	6 51 6 50 7 50 5 52 5 52 6 50 7 50 8 50 5 55 4 51 5 52	.1 51. .0 50. .0 50. .0 52. .0 52. .7 50. .7 50. .3 49. .1 53. .3 51. .0 52	1 138. 0 150. 0 153. 0 173. 0 174. 0 152. 0 157. 5 9 174. 3 176.	5 58. 5 61. 5 60. 2 63. 8 63. 0 62. 0 60. 8 63. 2 63. 8 63.	2 71. 1 52. 8 51. 0 58. 0 58. 3 52. 5 52. 0 59. 4 52. 0 58.	6 6.40 16 4 6.10 15 2 6.10 15 7 6.50 15 7 6.50 15 5 6.10 15 0 6.40 15 2 6.50 15 7 6.50 15	abce abcde abce abce abce abce abc abc abcde abcde	1-SD 1-DD 1-SD 1-SU 2-DD 2-DD 1-Du 1-DD 2-DD 2-DD	Pu Pu Pu Pu Pu Pu	HS HS HS HS HS	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Hy SB Hy Hy Hy Hy Hy Hy Hy Hy Hy Hy	4.10 4.55 4.55 4.10 4.10 4.10 4.10 4.78	SP TT TT TT Ta Ta	Fr Fr Fr Fr Fr Fr Fr Fr		17 17 24 25 17 26 22 28
Ferrari 250 Grandturismo 410 Super America	12-2.84x2.30 12-3.43x2.88	240-700 340-600	0 180. 0 303.	0 8.8	0 V		AA		100	0 30	. / 90		1	17 0 50	6.00/16 6.50/16		3-Up 3-Up			1		:		· Pr	MH	1 26
Fiat	2-2.58x2.73 4-2.36x2.20 4-2.38x2.20	15-400 22-460 22-460	0 38.	8 7.8	O IL	111	AA AA	Ch	78.	7 45	.2 45	.4 126.	6 54	.3 55	0 5.00/15 3 5.20/12 5.20/12	abc	1- 1-SD 1-	Pu	HS HS		SB	5.15 5.27 6.45		FR	H	18 12 18

# FOREIGN PASSENGER CARS—concluded

			ENGI	NE									G	ENER	AL DAT	A						REAR AXLE				
MAKE	n.)	Hp. at	nt		aut					TRI	EAD	DIM	ERAI ENSI				Deed			spee		1)		Suspension		(4)
MAND MODEL	Number of Cylinders Bore and Stroke (in.)	Maximum Brake P Specified R.P.M.	Piston Displacement (Cu. In.)	Compression Ratio	Cylinder Arrangement	Valve Location	Piston Material	Camshaft Drive	Wheelbase (In.)	Front (In.)	Rear (In.)	Length Including Bumpers and Rumper Guarde	Width	Height Road to Roof, No Load	Tires (In.)	Oil Pressure to-	Carburetors—No. and Type	Cooling System	Shifting Method	No. of Forward Sp.	Final Drive	Gear Ratio (To -	Torque Taken By	Independent Suspi	Service Brakes	Shineina Walaht (
ITALY—contin	ued																									
Fiat Continued 1400-B Diesel 1100 1200 1400-B 1900-B	4-2.65x2.92 4-2.81x2.92 4-3.23x2.60	43-3200 43-4800 55-5300 58-4600 80-4000	66.5 73.8 85.0	7.00 8.00 7.50	IL IL	IH		Ch	91.5 91.3 104.3	48.0 48.0 52.2	47.4 47.4 52.0	153.0 153.0 169.5	57.6 57.6	55.5 54.6 62.0	6.40 14 5.20 14 5.20 14 5.90 14 6.40 14	abc	Inj 1- 1- 1-DD 1-DD	Pu Pu Pu Pu Pu	HS HS HS HS	4 4	Hy	4.10 4.30 4.30 4.45 4.30	TA	Fr Fr Fr Fr	H H H	26 26 27 24 26
Iso Isetta	1-1.89x2.60	10-4500	7.3	6.50	IL	N	AA	N	59.1	47.2	19.7	88.6	52.1	52.0	4.50/10	N	1-St	AC	HS	4	Ch		Sp	Fr	н	1
Lancia C-10 Appia Flaminia Aurelia GT-2500	6-3.15x3.21	44-4800 100-4800 112-5000	150.0	7.80	٧		AA		113.0	54.8	54.0	196.0	69.0	57.5	5.60 15 6.30 15 6.50 15	abce	1-St 1-Dt	Pu Pu	HS HS		Hy SB	5.22 3.90 4.27		Fr Fr	н	16 36 26
Maserati A8-G/2000 150/S 200/S1 350/GT 300/S 250/S 450/S	4-3.11x2.76 4-3.62x2.96 6-3.36x3.90 6-3.31x3.54 6-3.31x2.95	125-6000 140-7500 180-7200 220-5500 260-6200 270-7200 400-7000	90.5 121.5 183.0 82.5 152.1	8.75 9.50 8.50 8.75 12.00	111111111111111111111111111111111111111	IH IH IH IH	AA AA AA AA AA	Ch HG HG Ch HG HG	86.7 86.5 101.5 91.0 89.0	49.3 49.3 54.2 51.3	47.3 47.3 53.0 49.3	145.0	57.1 57.1 63.1 59.1	0 30.0 0 31.0 0 52.0 0 33.0 0 39.0	6.00/16 6.50/16 (8)	abcde abce	3- 2-Dt 2-Dt 3-Dt 3-Dt 3-Dt 4-Dt	Pu Pu Pu Pu Pu Pu	Pr Pr Pr Pr Pr Pr	4 4 4 5	SB Hy Hy SB DR SbR DR	4.75 Var Var 3.55 Var Var Var	TT	Fr FR Fr FR	IIIIIII	2: 1:
D. S. C. A	4-2.42x2.42 4-2.73x2.77	70-7500 95-7000 135-6600	66.5	9.50	IL	IH	AA AA	C-S C-S C-S	82.0	44.7	44.0	145.0 148.0 156.0	53.	7 35.6		abc abc abc	2-Dt 2-Dt 2-Dt	Pu Pu Pu	HS HS	4	StB StB StB	5.37 5.43 5.45	Sp Sp Sp	Fr Fr	III	
JAPAN																										
Nissan Datsun 210	4-2.87x2.32	34-4400	60.3	7.00	IL	L	AA	Ch	89.4	46.1	46.5	152.0	57.	7 60.4	5.00/15	abcde	1-SD	Pu	HS	4	Ну	5.57	Sp	N	н	1
PrinceSkyline	4-2.95x3.31	60-4400	90.6	7.50		IH			99.8	52.7	54.2	168.5	65.	9 60.5	6.40/14			1	HS	4	Ну	4.63	11-	Fr	н	2
Foyopet Corona Crown RS	4-2.56x2.95 4-3.03x3.07	33-4500 60-4400	60.1 88.5	7.00 8.00	IL	L		HG HG							5.60/14 7.00/14		1-SD 1-SD	Pu Pu	HS HS		Hy	6.17 5.29		Fr	H	2
SPAIN																										
Pegaso 102B/2.8 102B/3.2 102B\$/2.8 	8-3.35x2.76 8-3.14x2.76 8-3.46x3.25	-6300 200-6000 250-6600 270-5800 370-6000	171.8	Var Var 8.00	V V V V	IH	AA AA AA AA	HG HG Ch HG	92.0 92.0 92.2	52.0 52.0 52.8	50.1 50.1 50.1	8 162.0 8 162.0 8 162.0	63. 63.	0 51.0 0 51.0 0 50.8	6.00 16 6.50 16 6.50 16 6.50 16 6.50 16 6.50 16	abc abc abc	1-DD 2-FB 1-DH 1-DD 4-DH	Pu Pu Pu Pu Pu	HS HS HS HS	5 5	\$B \$B \$B \$B \$B	Var Var Var 3.58 Var	Sp Sp Sp	Fr Fr Fr Fr	TITII	2 2 3 2
S. E. A. T	4-2.34x2.18 4-3.23x2.80	22-4600 44-4400		7.00 6.70			AA	Ch							4.10/12 5.90/14		1-Do 1-DF	Pu Pu	HS HS		Hy Hy	5.38 4.44		FR Fr	H	1 2
SWEDEN																										
SAAB 92-B 93 93-B	3-2.60x2.88	28-4000 38-5000 38-5000	45.8	6.60 7.30 7.30	11.	NNN	AA AA	N N N	98.4	48.0	48.	0 157.1	61.	5 57.1	5.00/15 5.00/15 5.00/15 5.00/15	N	1-SD 1-St 1-St	TS Pu Pu	HS HS	3	HG HG	5.35 5.13 5.23			HHH	1 1
Volvo PV-444 Std. PV-445 Std. Amazon Std.	4-3.13x3.15 4-3.13x3.15	60-4500 60-4500 60-4500	98.0	7.40	IL		AA AA		102.3	51.0	51.	B 174.0	63.	0 66.	0 5.90 15 0 6.00 15 5 5.90 15	abe	1-SD 1-SD 1-SD	Pu Pu Pu		3	Hy Hy Hy	4.56 4.56 4.56	Sp	Fr Fr	HHH	2 2 2

# ABBREVIATIONS

- ABBREVIATIONS

  1.—Fully automatic, preselective or hand shift optional.

  2.—Four harrel carburetor optional.

  3.—Four hevel drive.

  4.—Varies with different body styles.

  5.—Front, 6.50/15; rear, 6.00/15.

  6.—Mechanical or hydraulic.

  7.—Front, 5.50/16; rear, 6.50/16.

  9.—Front, 5.50/16; rear, 7.00/16.

  10.—Front, 5.50/16; rear, 7.00/16.

  11.—Front, 5.20/14; rear, 5.25/15; rear, 5.90/15.

  12.—Front, 5.25/15; rear, 5.90/15.

  12.—Front, 6.00/16; rear, 7.00/16.

  2.—Main bearings.

  3.—Connecting rod bearings.

  4.—Piston pins.

  9.—Timing chain or gears.

  A.—Aluminum alloy.

  A.—Air cooled.

- AS—Aluminum alloy and steel strut.
  AT—Aluminum alloy, tin plated.
  Au—Automatic.
  BG—Bevel gear.
  Ch—Chain.
  C-S—Chain.
  C-S—Chain and spur gear.
  DD—Dual downdraft.
  DF—Downdraft four barrel.
  DF—Downdraft.
  DF—Foot.
  DF—Foot.
  DF—Foot.
  DF—Foot.
  DF—Foot.
  DF—Foot.
  DF—Foot.
  DF—Foot.
  DF—Downdraft.
  DF—Downdra

- Ha—Horisontal.

  HO—Horisontally opposed.

  HS—Hand shift.

  HS—Helical spur gears.

  HV—Hydraulic, vacuum assisted.

  HV—Hydraulic, vacuum assisted.

  HV—Hydraulic, vacuum assisted.

  LI—In line.

  II—In line.

  II—Injectors.

  L —Valves at side.

  M—Mechanical and hydraulic.

  MH—Mechanical and hydraulic.

  Pr—Preselective.

  Pr—Preselective.

  Pr—Pump.

  RA—Radius arms.

  SB—Spiral bevel.

  SB—Spiral bevel.

  duction.

  5d—Semi-downdraft.

  SO—Single throat, downdraft

- SDR Spiral bevel, double re-duction.

- SDR—Spiral bevel, double reduction.

  SG—Spir gear.

  Sh—Shaft.

  Sh—Single throat, horizontal.

  Sp—Spirings.

  Sd—Single throat, semi-downdraft.

  St—Straight hevel.

  St—Straight hevel.

  Ta—Torque arm.

  Ta—Torque arm.

  Ta—Torque arm.

  Ta—Torque tube.

  Up—Updraft.

  V—W' ype.

  Var—Various.

  Var—Various.

  War—Various.

  War—Various.

  War—Various.

# LIGHT TRUCKS

		HEEL-	(°			SIZES		ENGINE (	DETA	ILS		TRANSMISS	SION	RI	EAR A	XLE	
MAKE			Weight vice (Lb.	3		al rear gle rear			cu. in.)	0.10						97	
MODEL	Minimum	Maximum Standard (In.)	Gross Vehicle Weigh for Normal Service	Chassis Weight	Standard Front and Rear	Maximum Authorized Tire Size (Duals unless noted)	Make and Model	No. of Cylinders, Bore and Stroke (In.)	Displacement (	Comp. Ratio (to Torque (Lb. Ft.)	Max. Brake H.P. at Given R.P.M.	Make and Model	Forward Speeds	Make and Model	Gear and Type	Drive and Torque	Patio I
(c.f.) (c.f.)  Jordge L6. L8. L6. L8. (c.f. L8. Grd Ran Ran C. C. C. C. SMC	H58 117' G58 123' G58 123' G58 135 315' G58 137'	116 116 116 116 116 116 116 116 116 116	4100 4100 10000 10000 9600 9600 9600 9600 9600	3669 3245 2880 3456 3450 3456 3450 3456 3450 3456 3450 3450 3450 3450 3450 3450 3450 3450	7. 50 14S 7. 50 14S 6.70 15S 7. 17. 15S 8 17. 5S 8 17. 5S 8 17. 5S 9 1857 7. 00 16S 7. 17. 5S 7. 17. 5S 7. 17. 5S 7. 17. 5S 7. 17. 5S 8. 17. 5S	8.00 14S 8.00 14S 7.5S 7.17.5S 8.19.5 8.19.5 8.19.5 7.17.5 8.19.5	O-Blue Flame O-Turbo Fire O-Th. Mas. 2 O-Th. Mas. 2 O-Th. Mas. 2 O-Th. Mas. Sp. O-Th. Mas. Mas. Sp. O-Th. Mas. Mas. Mas. Sp. O-Th. Mas. Mas. Mas. Mas. Mas.	6-3 (x33) 8-3 (x34) 8-3 (x44) 8-3 (x	236 238 238 238 238 238 238 238 238 238 238	8 3215 8 3215 8 3215 8 3215 8 3215 8 3215 8 3215 8 3215 8 3215 6 1123 6 1123 6 1123 6 6173 6 6173 7 5220 7 5220 8 1290 8 1290 8 6212 9 1295 8 520 7 7 530 7 7 530	145 - 4200 185 - 4600 185 - 4600 145 - 4200 145 - 4200 145 - 4200 145 - 4200 145 - 4200 145 - 4200 145 - 4200 145 - 4200 145 - 4200 145 - 4200 145 - 4200 145 - 4200 145 - 4200 145 - 4200 147 - 2800 55 - 2900 75 - 2800 75 - 2800 75 - 2800 75 - 2800 75 - 2800 75 - 2800 75 - 2800 75 - 2800 162 - 3400 102 - 3400 102 - 3400 102 - 3400 103 - 3600 104 - 4400 100 - 3600 104 - 4400 107 - 3600 108 - 3400 117 - 4400 139 - 4200 131 - 4200 131 - 4200 131 - 4200 131 - 4200 131 - 4200 131 - 4200 131 - 4300 130 - 3600 130 - 3600 131 - 360	Own! Own! Own3 Own3 Own3 Own3 Own3 Own3 Own3 Own3	4 4 3 3 3 3 3 4 4 3 3 3	Own	######################################	TILITITITITITITITITITITITITITITITITITIT	3 . 55 . 3 . 70 . 3 . 55 . 3 . 70 . 3 . 55 . 57 . 6 . 5 . 5 . 5 . 57 . 6 . 5 . 57 . 6 . 5 . 57 . 6 . 5 . 57 . 6 . 5 . 5 . 57 . 6 . 5 . 5 . 5 . 57 . 6 . 5 . 5 . 5 . 5 . 5 . 5 . 5 . 5 . 5
OURWHEELD	3E11 122 3E12 122 3E13 131 3E14 131	122 122 131 131	7000 7000 10000 10000	2535 2625 3140 3050	7.00 16S 7.00 16S 8 17.5S 8 17.5S	8 19.5S 8 19.5S 8 17.5 8 17.5	Own 4E Own 3E Own 3E Own 4E	6-3 (2 x 4 3 4 8 -3 (2 x 3 ) 4 8 -3 (2 x 3 ) 4 6 -3 (2 x 4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	246 259 259 246	7. 5204 7. 5250 7. 5250 7. 5204	106.3400 170-4200 170-4200	WG T908 WG T908 WG T89C WG T98A WG T98A	3 3 4 4 4	Spi 60 Spi 60 Spi 60 Tim B100 Tim B100	HF HF HF HF	TITI	4.88 4.10-4. 4.10-4. 4.86-5. 5.14-5.
Dodge L8- L8- L8- L6-W L6-W L8- F4-13 F4-13 F4-13- L6-22 L6-226	W100 108 W100 108 W200 116 W200 116 W200 116 W300 129 W300 129 W300 129 W300 129 4-4-4x 104 4-4-4x 104 4-4-4x 104 4-4-4x 104 6-4-4x 104 6-4-4x 104 6-4-4x 104 6-6-4x 104 6-6-6-101	104 118 104 104 118 80, 81 101 80, 81	5100 8000 8000 9500 10000 2 4500 4500 4500 2 4500 3500 3750 3750 3900 2 2600	3200 3275 3375 4450 4900 1850 1701 2016 1963 1814 2127 1836 1867 1916 1458	7 17 .58 7 17 .58 7 17 .58 7 17 .58 7 17 .58 7 17 .58 8 19 .58 8 19 .58 8 19 .58 7 .00 158 6 .70 158 7 .00 168 6 .70 158 7 .00 168 6 .00 168 6 .00 168 7 .00 168 8 .00 168	7 17.5\$ 7 17.5\$ 7 17.5\$ 7 17.5\$ 9.00 185 6.70 185 7.00 185 6.00 185 6.00 185 6.00 185 7.00 185 7.00 185 7.00 185 7.00 185 7.00 185 7.00 185 7.00 185 7.00 185 7.00 185 7.00 185 7.00 185 7.00 185 7.00 185 7.00 185 7.00 185 7.00 185	Own	8-31,x45, 8-31,x45, 8-31,x31, 8-31,x31, 8-31,x31, 8-31,x41, 8-31,x45, 4-31,x45, 8-31,x	230 315 230 315 230 251 315 134 134 134 134 134 134 134 134	7. 9202 8. 1290 7. 9202 8. 1290 7. 9198 7. 1216 8. 1290 6. 9114 6. 9190 6. 9190 6. 9190 6. 9114 6. 9114 6. 9114 6. 9114 6. 9114 6. 9114 6. 9114 6. 9114 6. 9114	120-3600 204-4400 113-3600 128-3600 72-4000 75-4000 105-3600 105-3600 105-3600 72-4000 72-4000 72-4000 72-4000 72-4000 72-4000	NP 89805 NP 89905 NP 89905 NP 89905 NP 420 NP 420 NP 420 WG T901 WG T902 WG T902 WG T903 WG T903	333334443333334444	Own Own Own Own Own Own Spi 70 Spi 70 Spi 201-4 Spi 2201-5 Spi 213-1 Spi 2201-5 Spi 2198-4 Spi 2231-1 Spi 2231-1	HS HS HS HS HS HS HS		4.10-4. 4.10-4. 4.10-4. 4.89-5. 4.88-5. 5.38 4.89-5. 3.84.27 4.27-4. 4.88 5.38 5.38 5.38 5.38 5.38 5.38 5.38 5

<sup>1—</sup>Overdrive optional.

2 283 V-8 Trademaster engine optional.

3 Three speed heavy duty or four speed transmission or Hydramatic optional.

6 Five speed transmission or Powermatic optional.

6 Five speed transmission or Powermatic optional.

# WHEEL TRACTORS \

# 1958

				GEN	NERAL				AW- AR		VERAL				WHE	ELS		RAT						at	Nor	
	TRACTOR		Radius	(ln.)	with		EAD n.)	(ln.)	ind (In.)			st	14	STE Diam. ar	EL nd Face	TIRE	SIZE			ımper			Speeds o	Engir (N with	ne R	H.)
THE MANUFACTURE	MAKE AND MODEL	Wheelbase (In.)	Minimum Turning Outside (Ft.)	Ground Clearance	Shipping Weight w Rubber Tires (Lb.)	Minimum	Maximum	Lateral Adjustment	Height Above Ground	Length (In.)	Width (In.)	Height—To Highest Point (In.)	Standard Equipment	Front (In.)	Rear (In.)	Front (In.)	Rear (In.)	Belt	Drawbar	Nebraska Test Nu	Power Take-off	0	Number of Reverse	First	Second	Third
1 2 3 4 5 6 7 7	Allie-Chalmers 1B 8 CA CA WD-45 WD-45 D-14 D-17	7313 8178 6812 88 8818 8534 93	7 784 719 612 812 812 912	1278 21341 2212 1738 2818 2914 1934 21	2060 3000 1285 4465 4730 4175 5280	36 56 55,%	5212 5212 80 64 90 9018 80 9211 9211	145 8 75 8 81 8 103 4 103 4	13 (g)	97 110 124 116 128 128 128 140 143	67 8 74 1 74 1 69 1	541 6234 7638 5611 811 89 7916 81	RT RT RT RT RT RT RT RT RT			5.00/15 4.00/15 5.00/15 4.00/12 5.50/16 5.50/16 5.50/16 6.00/16	9/24 9/24 10/24 6/30 12.00/28 12.00/28 11/26 13/28 13/28	26.62 10.91 45.27 45.42	18.00 19.51 23.55 9.59 40.01 40.42 32.19	302 453 398 499 563 623 NT	Op Op St St St St Op Op	3 4 4 4 4 8 8	1 1 1 1 2 2	3.50 2.75 2.00 1.60 2.40 2.40 1.50 1.80	4.25 3.50 2.26 3.75 3.75 2.20 2.60	5 8.5 0 4.5 6 3.5 5 5.0 8 5.0 0 2.6 0 3.0
0	Brockway 49D 49G 49K	7636	1014 1014 1014	20 20 20	3600 3600 3600	48	76 76 76	281 281 281	16 16 16	115 115 115	63 63 63	6215 6215 6215	RT RT RT	1374411		6.00/16 6.00/16 6.00/16	11/28 11/28 11/28	35.00 31.75 27.00	32.00 28.00 24.00		St St	4 4	1	2.16 2.16 2.16	3.3	4 4.7
3 4 5 6 7 8 9 0 1 2 3	Case 2118 3118 4118 6118 7718 7718 8118 9008	843 8 843 8 87 87 921 4 921 4 921 4 83 1 8	784 784 784 784 784	191-2 211-2 25 25 261-4 261-4 13-6 13-6	2958 3274 3435 4450 4475 5575 6000 6000 7500 7500	54 54 54 52 52 52	88 88 88 88 88 88 88 88 67	16 16 16 16 2014 2014	1112	1433	7912 7912 7912 8134 8034 8514 8514	59 61 61 65 65 2 93 2 93 2 93 2 93 2 93 2	RT RT RT RT RT RT RT RT RT RT			5.00/15 5.50/16 6.00/16 6.00/16 6.00/16 6.00/16 6.00/16 6.00/16 6.00/16 7.50/18 7.50/18	10/28 11/28 11/28 11/28 12/40/36 12/40/36 13.60/38 13.60/38 13.60/38 14/34		47.00 47.00	NT NT NT NT NT NT NT NT	Op Op Op Op Op Op Op Op Op	4 4 4 4 8 8 8 8 6 6	1 1 2 2 2 2 1	1.40 1.40 1.40 1.40 2.70 2.50	1.90 1.90 1.90 1.90	0 2.7 0 2.7 0 2.7 0 2.7 0 4.8
	Caterpillar DW15 DW20 DW21	128	413-2 42 36	151/8 16 18	21530 26545 39360				1 - 1	200 <sup>3</sup> 211 <sup>3</sup> 188	1073 118 141	111 125 132	RT RT RT	11141111		12/28 14/24 N	26.5/25 29.5/29 29.5/29					5 5 5	1	2.60 2.80 2.30	5.5	0 9.
	50G	891 <sub>2</sub> 891 <sub>2</sub> 891 <sub>2</sub> 891 <sub>2</sub>	71/3 12 12 12 12 12 12 12	241/2 26 26 26 26 26 26 26 26	2058 5000 5860 5990 5000	56 56 62 58	76 84 84 84 62 58 74	231	1416 1416 1416 1416 1416	114 134 134 134 134 134 134	63 75 75 75 75 75 75 75 75 75 75 75	76 7912 7912 7912 7912 7912 89	RT RT RT RT RT RT		**************************************	5.00/15 6.00/16 7.50/16 7.50/16 6.00/16 6.00/16 6.00/16	10/24 12/38 14/34 14/34 12/38 11/38	30.45 45.59 57.81 53.25	40.06 51.51	474 442 488 487	Op Op Op Op Op Op	4 6 6 6 6 6	2 2 2 2 2	2.31 1.62 1.52 1.52 1.62 1.62 1.85	2.7 2.5 2.5 2.7 2.7	5 3 7 3 7 3 5 3 5 3
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78901234	International W-450 W-450C Cub Lo-Boy 350 650C 330 Utility 350C	0 82 0 82 0 62 0 75 0 83	9 123 9	14	159 418 565 390 426	0 56 0 56 0 40 0 48 0 60 0 48 0 48	72 72 56 76 71 76 76	18 18 23 26 18 26 26 18	Ad Ad Ad Ad Ad Ad Ad	130 130 97 123 137 121 123	72* 72* 48* 64* 76* 64 64 76	93 92 55 60* 84 60 85	S-F S-F RT S-F RT RT	N	N	6.50 18 6.50 18 4.00 12 5.50 16 7.50 18 5.50 16 5.50 16 7.50 18	14/30 14/30 7/24 11/28 14/34 11/28 14/34	44.10	1	611	Op Op Op	55355555	1 1 1 1 1 1	2.50	0 3.7 0 3.1 0 3.8 0 3.8 0 3.8	70 4 10 6 80 5 20 4 80 5 80 5

For Key to References and Abbreviations See Pages 90 and 91

No	emai (	peeds Govern	ned		EN	GINI					FUEL										BELT			CAI	PACI	TIES			
		R.P.N landari eels		Make and Model	Number of Cylinders Bore and Stroke In.	Piston Disp. (Cu. In.)	R.P.M. at Governed Speed	Valve Arrangement	Number of Main Bearings	Diameter of Main Bearings Standard	Optional	Ignition Make	Carburetor or Injector	Air Cleaner Make	Governor Make	Oiling System Make	Cooling System Type	Clutch Make and Type	Final Drive Type	Diameter (In.)	Face (In.) Normal R.P.M.	Steering Type	Cooling System (Gal.)	Fuel Tank (Gal.)	Crankcase (Qts.)	Transmission (Qts.)	Final Drive Case (Qts.)	Starting Method	Line Number
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	16.10 16.10 15.80		3.20 (2.80 (3.10 (2.90 (2.10 (	Own C281 Own D281	4 41 x81 4 41 x51 4 25 x23 4 35 x41 4 41 x51 4 31 x41 4 33 x48	281 261 60 175 350 135 193	1450 1450 1800 2000 1500 2000 2000		3 5 3 3 3 3 3	211 G 311 G 211 G 411 G 211 G 211 G 211 G	D,K,LP D,K,LP D,K,LP D,K,LP N	Own Own Own Own Own	Own Own	Den Den Den Den	Own Own Ros	P	Pu TS Pu Pu Pu Pu	O-R SP O-R SP R-A SP O-R SP O-R SP Own SP Own SP	SG SG SG SG SG SG	11	71 899 71 899 43 1487 71 1082 81 707 71 1082 71 1082	CL	7 734 21 41 91 31	2116 1816 716 1116 36	8 9 3 6 11 5	58 58 2 28 40 28 28 40	11132	Ele Ele	67 68 68 70 71 72 73 74

For Key to References and Abbreviations See Pages 90 and 91

# 1958 MODELS OF TRACTORS . . .

			GEN	IERAL				AW- AR		VERA				WHE	ELS			P. ING						l Sper lorma verner
TRACTOR		Radius	(In.)	with L.)		EAD	t (In.)	Ground (In.)			*	ıt	STE Diam. a		TIRE	SIZE			Number		d Speeds	e Speeds	Engine (M. with S	P.H.
MAKE AND MODEL	Wheelbase (In.)	Minimum Turning Outside (Ft.)	Ground Clearance	Shipping Weight w Rubber Tires (Lb.	Minimum	Maximum	Lateral Adjustment	Height Above Gro	Length (In.)	Width (In.)	Height To Highest Point (In.)	Standard Equipment	Frant (In.)	Rear (In.)	Frant (In.)	Rear (In.)	Belt	Drawbar	Nebraska Test Nu	Power Take-off	Number of Forward	Number of Reverse	First	Second
Accept-Harris- Ferguson F-TO-35 F-TO-35 F-35D MF-50 Std. LPG MF-50 Utd. LPG MF-50 Tri. LPG MF-55 Tri. LPG MF-65 Hd. MF-65 Tri. Std. MF-65 Tri. LPG MF-202 Std. MF-202 Std. MF-203 MF-204 MF-333 Std. MH-4333 Std. MH-444 Std. MH-444 Std. MH-444 Rd. MH-4555 Std. MH-555 Std. MH-555 Std.	72 72 81 17 84 18 84 18 84 18 84 18 86 18 87 18	81 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	128 6 128 128 128 128 128 128 128 128 128 128	2776 2797 3150 3200 3195 3235 3252 33520 5264 5264 5654 5654 5654 5654 5478 5478 7631	48 48 48 48 48 48 48 48 556 556 556 556 556 556 556 557 70	76 76 76 76 76 88 88 88 88 88 88 88 88 88 88 88 88 88	17 2 17 2 17 2 17 2 17 2 17 2 17 2 17 2	Ad A	116 <sup>3</sup> , 116 <sup>3</sup> , 116 <sup>3</sup> , 111 <sup>3</sup> , 111 <sup>3</sup> , 112 <sup>3</sup> , 112 <sup>3</sup> , 113 <sup>3</sup> , 133, 140, 140, 138 <sup>3</sup> , 137, 137, 137, 150 <sup>3</sup> ,	631 631 631 631 631 631 631 631 631 631	5414 5414 5414 5414 547 57 57 6314 57 6314 70 75 75 75 76 75 76 76 76 76 76 76 76 76 76 76 76 76 76	RT R	30x574 30x574	54x12 54x12 54x12	4.00 / 19 4.00 / 19 4.00 / 19 6.00 / 16 5.50 / 16 5.50 / 16 6.00 / 16 5.50 / 16 6.00 / 16 6.00 / 16 6.00 / 16 7.50 / 15 6.00 / 16 7.50 / 15 5.50 / 16 6.00 / 16 7.50 / 15 7.50 / 15 7.50 / 16 7.50 / 18	11/28 11/28 11/28 11/28 11/28 11/28 11/28 11/28 11/28 11/28 11/28 11/38	29.33 29.33 31.00 28.99 28.99 28.99 28.99	23.76 23.76 26.09 23.75 24.75 25.75	564 NT 595 NT 595 595 595 595 NT NT NT NT NT NT NT NT NT NT NT NT NT	St Opp Opp Opp Opp Opp Opp Opp Opp Opp Op	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	222222222222222222222222222222	1.33 1 1.33 1 1.33 1 1.33 1 1.33 1 1.45 2 1.45 2 1.	. 99 3 3 99 3 3 99 3 3 99 3 3 99 3 3 99 3 3 99 3 3 99 3 3 99 3 99 3 99 3 99 3 99 3 99 3 99 3 99 5 3 99 5 3 99 5 3 99 5 3 99 5 3 99 5 3 99 5 3 99 5 3 99 5 3 99 5 3 99 5 3 99 5 9
Farmall Cut Farmall 130-MC Farmall 230 Farmall 350-MC Farmall 450-D Farmall 450-DF Farmall 450-DHC Farmall 450-DHC Farmall 350-DHC	71 71 82 92 94 96 96 101 101 92	812 812 816 715 812 1116 812 812 12 12 812	34 34	1590 2710 2860 3310 5500 5500 6220 6640 6580 6990 4800	0 40 0 48 0 48 0 62 0 50 0 62 0 62	56 68 68 80 93 74 94 94 74 74 74 93	23 19 19 26 30 26 26 30 30 26	Ad Ad Ad Ad Ad Ad Ad Ad Ad Ad	90 107 115 123 136 149 141 141 155 155 138	751g 86	76 82 88 65 86 95 95 94 107 106 91	RT RT RT Op RT Op RT RT RT	N	N	4.00 12 5.00 15 4.00 19 5.00 15 5.50 16 6.00 20 6.00 16 6.00 20 6.00 20 5.50 16 6.90 20	8/24 9/24 9/36 10/36 12/4/38 11/38 13.6/38 13.6/38 13/38 12/4/38 11/38	40.23		575 617 NT 616 611 NT 612 608 NT NT	Op Op Op Op Op Op Op	344455555555	111111111111111111111111111111111111111	2.40 3 3.00 4 2.70 4 2.50 3 2.60 4 2.50 3 2.40 3 2.40 3 2.40 3	3.70 4 4.80 9 4.30 9 3.80 9 3.70 9 3.80 9 4.10 9
Minneapolis-Moline  335 Unility 335 Type E 335 Type E 335 Type S 335 Type R 335 Type R 335 Type R 335 Type R 445 Utility D 445 Type L 445 Type L 445 Type L 445 Type L 445 Type M 445 Type M 5 Star Type R 5 Star Std. L 5 Star Type L 6 Star Type L 6 Star Type L 7 Star Type L 7 Star Type L 8 Star Type L 8 Star Type L 9 Star Ind. L 9 GE UTI Industria UTIL Industria UTIL Industria UTIL Industria UTIL Industria	78   4   178		12 18 23 22 23 12 20 25 22 25 25 25 25 25 25 25 25 25 25 25	30773 3268 3277 33553 33553 3530 3650 3630 3755 5770 6070 5780 6060 6460 6460 6525 7400 6010 6310 6310	4 48 4 48 5 56 5 56 5 56 5 56 5 56 5 56 5 56 5 5	8314 766 766 766 766 7684 848 888 888 888 888 888 888 888 888	Ad Ad Ad Ad Ad Ad Ad Ad Ad Ad Ad Ad Ad A	20 20 19 <sup>3</sup> / <sub>6</sub> 12 <sup>3</sup> / <sub>8</sub> 15 <sup>3</sup> / <sub>2</sub> 14 14 14 14 14 15 <sup>3</sup> / <sub>2</sub> 16 <sup>3</sup> / <sub>4</sub> 16 <sup>3</sup> / <sub>4</sub> 17 17 17 17 17 17 17 17	1211 1284 119 1 113 1 121 1 130 1 137 5 128 3 130 1 137 5 140 1 140 1 147 1 134 1 140 1 147 1 137 1 138 1 138 1 138 1 138 1 149 1 140 1 147 1 157 1 15	74 69 4 69 69 82 4 8 82 4 8 82 4 8 82 4 8 82 4 8 8 8 8	67 65 67 66 67 66 67 66 67 72 72 72 72 72 72 72 72 72 72 74 44 4	RT R			11/24 5.50 16 5.50 16 6.00 16 6.00 16 6.00 16 6.00 16 6.00 16 6.00 16 6.00 16 6.00 16 6.00 16 8.25 20 7.50 18 8.25 20 8.25 20	7.50/18 10.24 12.4,35 12.4,38 10.24 12.28 12.28 11.38	35.077 35.07 35.07 40.000 44.19 44.19 44.100 44.000 55.000 55.000 55.000 55.000 55.000 55.000 55.000 55.000 55.000 55.000 55.000 55.000 55.000	31, 41 31, 41 35, 00 40, 24 40, 00 40, 31 40, 31 40, 00 40, 00 40, 00 50, 00 50	624 624 624 627 579 578 578 578 578 1 NTT 1 NTT		35555555555555555555555555555555566	111111111111222222211111	2.16 4 3.86 5 3.86 5 3.86 5 3.88 5 2.66 4 2.78 6 2.78 6 2.78 6 2.78 6 2.78 6 2.66 4 2.83 4 2.	4 . 17 (
Oliver Super 55 HC Super 55 E RC Super 66 HC RC Super 66 C RC Super 77 HC Ind. Super 77 HC RC Super 77 D Ind. Super 77 D	73 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -	10 10 834 914 1212 914 1212	141/2 141/2 181/6 181/6 131/2 181/6 131/2	3050 3200 2886 3026 4226 4346	48 60 60 60 5214	76 76 88 88 9216 6912 9212 6912	20 7 20 7 20 20 20 20 20 20 20 20 20 20 20 20 20 2	Ad Ad Ad Ad Ad Ad Ad Ad	139	6684 6684 8014 8014 8014 8014 788 8014 788	73 4 73 4 75° 70° 75°	RT RT RT RT RT RT RT			5.50/16 5.50/16 5.50/15 5.50/15 5.50/16 7.00/20 5.50/16 7.00/20	10/28 10/28 9/38 9/38 11/38 12.00/24 11/38 12.00/24	35.88 34.09 35.54 35.43 46.18 45.94	28.97 29.60 29.09 40.16	526 541 544 542 NT	Op Op Op Op Op	6 6 6 6 6 6	22222	1.61 2 1.61 2 1.88 2 1.88 2 2.46 3 1.97 2 2.46 3 1.97 2	2.15 2.72 2.72 3.24 2.59

# . . . WHEEL TYPE—continued

No	wel Si	lovern	ed		ENC	INE		_			FUEL										LLE				CAP	ACI	TIES	7		
	ith St.	andard		Make and Model	Number of Cylinders— Bore and Stroke (In.)	p. (Cu. In.	R.P.M. at Governed Speed	rangeme	Main E	Diameter of Main Bearings Standard	Optional	Ignition - Make	Carbureter er Injecter Pump-Make	Air Cleaner - Make	Governor Make	Oiling System - Make	Cooling System Type	Clutch - Make and Type	Final Drive Type	Diameter (In.)	Face (In.)	Normal R.P.M.	Steering Type	Cooling System (Gal.)	Fuel Tank (Gal.)	Crankcase (Qts.)	Transmission (Qts.)	Final Drive Case (Qts.)	Starting Method	a land Ministration
32 32 32 32 32 32 32 32 32 32 32 32 32 3	7.96 7.96 7.96 7.96 8.71 8.71 7.51 7.78 7.78 7.78 7.78	14.57 14.57 14.57 14.57 14.57 14.57 14.57 14.26 14.26 12.96 12.96 (QQ) (QQ) (QQ) (QQ) (QQ) (QQ) (QQ) (QQ	(gg) (hh) (hh) (a) (a) (ii) (ii) (iii) (rr) (rr) (rr) (rr) (r	SM 23C Cont Z134 Cont Z134 Cont Z134 Cont Z134 Cont G176 Cont G176 Cont G176 Cont G176 Cont Z134	4 3 1 x 3 4 4 3 1 x 4 3 1 x 4 3 1 x 4 3 1 x 4 3 1 x 4 3 1 x 4 3 1 x 4 4 4 4 3 1 x 4 4 4 4 3 1 x 4 4 4 4 3 1 x 4 4 4 4 3 1 x 4 4 4 4 3 1 x 4 4 4 4 3 1 x 4 4 4 4 4 3 1 x 4 4 4 4 4 3 1 x 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	134 2 138 2 134 2 134 2 134 2 134 2 134 2 176 2 176 2 176 2 176 2 134 2 208 1 277 1 208 1 208 1	0000 0000 0000 0000 0000 0000 0000 0000 0000		***************************************	0 G G G G G G G G G G G G G G G G G G G	LP LP LP LP LP LP LP D,O,LF	DRR DRR DRR DRR DRR DRR ALL ALL ALL ALL ALL ALL ALL ALL ALL A	M-C M-C Zen M-C M-C M-C MS-Z MS-Z MS-Z MS-Z MS-Z MS-Z MS-Z Ens Ens Ens Ens Ens Ens Ens Ens Ens Ens		Novi Novi Novi Novi Novi Novi Novi Own Own Own Own Own Own Own Own Own Own	0000000000000000		Au D54 Au D54 Roc D55 Au D56 A	SB S	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	1358 1358 876 876 875 875 875 875 875 875 875 875 875 875	DA DA Ad Ad SSA SSA SSA FFK SSA WG WG WG WG WG WG WG FFK	214422222222222222222222222222222222222	14 11 17 16 17 17 17 17 17 17 17 17 14 14 14 14 23 23 23 27 14	55655555666665587777778778778999	32 32 32 32 32 32 32 32 32 32 32 32 32 52 52 52 52 52 52 52 52 52 52 52 52 68 68 68	5.6 5.6 5.6 5.6 5.6 5.6 5.6 5.6 5.6 5.6	Ele	Cappening of the Cappen
.30 .70 .70 .10 .10	16.10 15.50 16.70 16.70 17.70 17.70 16.10 15.50		2.90 3.80 3.40 3.10 3.30 3.30 3.50 3.50 2.10	Own. C123 Own. C123 Own. C123 Own. C175 Own. C175	4-41 x51 4-41 x51 4-33 x43	123 1 123 1 123 1 175 1 175 1 281 1 281 1 281 1	1400 1400 1800 1750 1750 1450 1450 1450 1450 1750		333333535353	1	D,K D,K D,K,L D,K,L D,K,L D,K,L N D,K,L	Own Own	CM2 CM2 Own Own Own	Don Don	Own Own Own Own Own Own Own Own Own Ros Ros		TS Pu Pu Pu Pu Pu Pu Pu Pu Pu	R-A SI R-A SI O-R SI O-R SI O-R SI O-R SI O-R SI O-R SI O-R SI	P SG P SG P SG P SG P SG P SG P CH P SG P CH	81-2 8 93-4 93-4 11 11	719 719 719 719 719	1157 1157 1487 1081 1081 899 899	WG WG WG WG WG WG	33 4 33 4 5 5 7 7	17 17 21 18 21 18 21 18 17	355566898955	2 5 5 20 28 28 58 58 58 58 28 28	1136 11116 11136 1136 1136 1136	Ele Ele Ele Ele Ele Ele Ele Ele Ele	
.23 .23 .23 .59 .71 .59 .05 .05 .35 .35 .71 .59 .25 .58 .58 .58 .58 .85 .30 .30 .80	15. 099 20. 26 20. 26 20. 26 21. 26 20. 26 2	(vv) (vv) (vv) (vv) (vv) (vv) (vv) (vv)	4.175.60 5.60 5.60 5.34 4.11 4.06 4.26 4.26 4.26 4.21 4.81 4.81 4.81 4.48 4.48 4.48 4.48 4.4	Own   165A	4 33 x4 4 33 x4 4 33 x5 4 33 x5 5 33 x5 4 33 x5 6	206 1 165 1 165 1 165 1 165 1 165 1 165 1 206 1 206 1 206 206 206 206 206 206 206 206 206 206	600 600 600 1600 1900 1550 1550 1550 1750 1750 1750 1750 1400 1400 1400 1400 1400 1400 1400 1300 13			G G G G G G G G G G G G G G G G G G G	LP LP TF LP	DR D	Mar	Don	Own Navi Navi Navi Navi Bas Bas Bas Bas Bas Bas Bas Bas Bas Bas		Pu Pu Pu Pu Pu Pu Pu Pu Pu Pu Pu Pu Pu P	Roc. S Roc. S Ro	SG P	12 12 12 12 12 12 12 12 12 16 16 16 16	612266122661226161616161616161616161616	741 741 741 741	SA Ad FO K F K A AD F O SA A F	23 23 23 23 33 33 33 33 33 33 33	14 14 14 14 14 17 17 17 17 17 17 17	666666666666699999999999999999999999999	10 24 24 24 24 32 32 32 32 32 32 32 32 32 32 32 32 32	00 00 00 00 00 00 00 00 00 00 00 00 00	Ele	
.44 .69 .69 .65	6.09 6.09 5.54 5.54 6.62 9.06 6.62	12.56 12.56 9.54 9.54 11.53 15.78 11.53	(f) (h) (h) (i) (ww)	Own \$5HC Own 55D Own 66HC Own 66D Own 77HC Own 77D Own 77D	4 31 x33 4 31 x33 4 31 x33 4 31 x33 6 31 x33 6 31 x33 6 31 x33	144 144 144 216 216 216	1750 1600 1600 1600 1600		3 3 3 4 4 4	214 G 214 G 214 G 214 G 214 G 214 G 214 G 214 G		DR DR DR	Mar Bos Mar Bos MS-2 Bos Bos	Don Don Don Don Don Don Don	Own Bos Own Bos Own Own Bos Bos	PS PS PS	Pu Pu Pu Pu Pu Pu Pu	Au S BB S BB S BB S BB S	P SG P SG P SG P SG P SG P SG P SG	936	714 714	992 992 992	FK SA SA FK SA	31 31 31 41 41 41	13 13 12 <sup>3</sup> 4 16 <sup>3</sup> 4 16 <sup>3</sup> 4 17	4 4 4 5 5 5 5 5	20 20 18 18 18 18 18	00	Ele Ele Ele Ele Ele Ele Ele	

# 1958 MODELS OF TRACTORS .

				GE	NERAL				AR		VERA				WHE	ELS			IP. FING					at G	Nor	ned
	TRACTOR		Radius	(ln.)	with 5.3		READ In.	t (In.)	Ground (In.)			ts a	nt		EEL and Face	TIR	E SIZE			Number		d Speeds	e Speeds o	with	M.P.I	ndard
Line Number	MAKE AND MODEL	Wheelbase (In.)	Minimum Turning Outside (Ft.)	Ground Clearance	Shipping Weight w Rubber Tires Lb.	Minimum	Maximum	Lateral Adjustment	Height Above Gro	Length (In.)	Width (In.)	Height To Highest Point In.	Standard Equipment	Frant (In.)	Rear (In.)	Front (In.)	Rear (In.)	Dett	Drawbar	Nebraska Test Nu	Power Take-off	Number of Forward	Number of Reverse		Second	Third
1 2 3 4 5 6 7 8 9 10 11 12 13 14	Oliver - Cont'd RC Super 88 HC Ind, Super 88 HC RG Super 88 D Ind. Super 88 D	82 16 93 11 82 12 73 2 92 18 92 18 94 16 80 80 80	934 1212 934 1212 10 10 934 934 1212 1012 1012 1012 6112	1812 1212 1812 1116 1412 1816 1816 1812 12 12 12	5000 5100 3100 3100 4428 4620 5100 5200 6800 7600 2100	54 60 54 48 60 60 60 60 62 62 62	9212 68 9212 68 76 76 9212 9212 9212 9212 62 62 68	20 <sup>2</sup> 8 20 <sup>1</sup> 20 <sup>2</sup> 8 20 <sup>1</sup> 20 <sup>2</sup> 8 20 <sup>2</sup> 8 20 <sup>2</sup> 8 20 <sup>2</sup> 8 20 <sup>2</sup> 8 20 <sup>2</sup> 12 <sup>7</sup> 8	Ad Ad Ad Ad Ad Ad Ad Ad Ad Ad Ad Ad Ad	143   135   143   135   120   120   141   141   143   136   136   136   136   116	80 4 81 80 4 87 87 80 4 80 4 80 4 80 4 80 4 76 76 85 7	75° 70° 1° 75° 70° 1° 53° 4° 53° 75 76 76 80 90 71 1° 69° 8	RT RT RT RT RT RT RT RT RT RT RT RT RT	N	N	6.00 16 7.00 20 8.00 18 7.00 20 5.50 16 5.50 16 5.50 16 5.50 16 6.00 16 7.50 18 7.50 18 4.00 15	12/38 13.00/24 12:38 13.00/24 10/28 10/28 10:28 12.4/38 13.6/38 13.6/38 14:34 14:34 14:34 16:34		49.81 49.58 30.75 30.75 60.90 77.44 21.00	525 NT 527 NT NT NT NT NT	Op Op Op Op Op Op Op Op	6 6 6 6 6 6 6 6 6 6	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2.01 2.50 2.01 1.61 1.61 2.11 2.07 2.07 2.34 2.34 2.57	2.63 3.24 2.63 2.15 2.96 2.96 2.94 2.94 3.07 3.07	3 3.46 5 3.33 5 3.68 5 3.68 4 3.57 7 4.14
15 16 17	Sheppard SD-2 SD-3 SD-4	92	71-2 8 834	25 25 26	4608 4708 6000	56	84 84 84	23 23 221	1814	125 131 1381	Ad Ad Ad	7014 7014 8312	RT RT			6.00/16 6.00/16 6.00/16	11/38 12/38 13/38			NT NT NT	Op Op Op	8 8 10	2	1.85	2.67	7 3.14 7 3.14 0 2.81
18 19 20	Tiger PTD 5 883 C-100	46	8 9 6	13 15 19	518 590 900	26	40 40 41	N N 8	13 15 15	64 66 75	26 26 57	35 37 45	RT RT RT	8 8 12	12 16 18	4.00/8 4.00/8 3.50/12	5.00/12 6.00/16 8/18	5.10 5.10 8.90	4.50 6.80 10.00		St St	1 1 3	1	8.00 8.00 2.00	)	10.0

## ABBREVIATIONS

- -With hub extension: 80° without.

  Clearance at front axle.

  t-Capacity final drive, each case.

  Minimum.

- \*—Minimum.

  Rated using gasoline.

  \*\*Included in transmission.

  \*\*With reversing transmission and 6 reverse speeds, from a low reverse of 1.00 and 5 other reverse speeds from 2.30 to 13.00 mph.

  To to 2.30 to 13.00 mph.

  -6.27 in 6th, 7.33 in 7th, road speed in
- 5.20 in 6th, 6.10 in 7th, 10.50 in 8th, 1.98 in low reverse, 2.28 in high
- reverse.
  11-74½ in. to 98 in.
  \*\*-5.24 in 6th, 6.15 in 7th, road speed in 8th, 1.98 in low reverse, 3.28 in
- high reverse.

- •—Includes filter.

  △△—Low reverse, 1.93; high reverse, 7.75.

  —I.77 in low reverse; 7.09 in high reverse.

  ←Engine clutch only; transmission clutch, multiple disc operating west.

- 4.—Five speed optional.
  5.—Double plate with continuous running power take-off.
  (a)—Low, 1.57; high, 5.29.
  (b)—Roller bearing.
  (c)—Front and center, 294; rear, 3.
  (d)—Low reverse, 2.31; high reverse, 3.91.
  (e)—Roverse, 2.12 and 2.4 and 2.4 3.91.
  (a) — Reverse 2.12 and 2nd speed 5.00.
  (f) — 1.68 and 3.48.
  (g) — 13½ minimum; 24½ maximum.
  (h) — 2.15 and 3.70.
  (i) — 2.59 and 4.52.
  (j) — 2.14 and 3.72.
  (k) — 2.56 and 4.40.

- (i)—4.29 in 6th, 4.90 in 7th, 6.40 in 8th, 9.91 in 9th, 16.00 in 10th, 1.62 in low reverse and 2.15 in high reverse, (m)—2.06 and 3.54.

- (m) -2.06 and 3.54, (n) -2.81 and 4.99, (1) -16, 22, 2554, 323/4, (r) -12/4 and 15/4, (s) -14/3 and 17/4, (s) -14/3 and 17/3, (t) -14/2 and 16/3, (v) -Low reverse, 3.26; high reverse, 6.22, (aa) -6th, 4.75; 7th, 8.50; 8th, 12.00, (bb) -Low, 2.60; high, 3.75, (cc) -6th, 5.50; 7th, 8.50; 8th, 12.00, (dd) -Low, 2.40; high, 3.50, (ew) -6th, 5.90; 7th, 9.40; 8th, 13.70, (ff) -Low, 1.70; high, 5.20, (hh) -Low, 1.71; high, 5.22, (hh) -Low, 1.72; high, 7.06, (ii) -6th, 3.09; 7th, 4.05; 8th, 5.29; 9th, 6.54; 10th, 11.30.

- (jj)—Low, 1.54; high, 2.66. (kk)—6th, 3.12; 7th, 4.14; 8th, 5.40; 9th, 6.67; 10th, 11,55. (i)—Low, 1.57; high, 2.72. (mm)—6th, 3.17; 7th, 4.15; 8th, 5.40; 9th, 6.77; 10th, 11,50. (nn)—Low, 1.60; high, 2.72. (ne)—6th, 3.84; 7th, 5.03; 8th, 6.55; 9th, 8.21; 10th, 14.00; 8.21; 10th, 14.00; (np)—Low, 1.93; high, 3.30. (np)—Low, 1.93; high, 3.30. (np)—Low, 1.78; high, 3.03. (np)—6th, 3.53; 7th, 4.61; 8th, 6.02; 9th, 7.55; 10th, 12.85; (rr)—Low, 1.78; high, 3.03. (np)—Low, 1.78; high, 3.03. (np)—Low, 1.78; high, 3.40. (np)—Low, 1.43; high, 3.40.

# **Progress in Engine Design**

# Average for Passenger Car Engines—Based on Number of Chassis Models Offered for Years 1936-1952 Based on Engine Models for 1953-1958

Average Piston Speeds (F1. per Min.) 1936 1937 2594 1938 2545 1939 2498 1940 2490	Average Displacement per Cylinder (Cu. In.) 1936 35.6 1937 35.8 1938 35.7 1939 35.1 1940 35.0	Average Number of Cylinders 1936 7.50 1936 1937 7.74 1937 1938 7.60 1938 1939 7.28 1939 1940 7.25 1940	7	37
1941         2492           1942         2534           1946         2522           1947         2550           1948         2492           1949         2522           1950         2505	1941 35.2 1942 34.9 1946 35.4 1947 35.8 1948 35.6 1949 36.8 1950 37.2	1941         7.15         1941           1942         7.20         1942           1946         6.97         194           1947         7.00         194           1948         6.95         1948           1949         6.80         1949           1950         6.88         1950	2 3638 19 5 3682 19 7 3660 19 8 3629 19 9 3690 19	46
1951         2505           1952         2523           1953         2560           1954         2589           1955         2585           1956         2634           1957         2724           1958         2735	1951 36.8 1952 36.6 1953 36.1 1954 36.8 1955 36.7 1956 39.6 1957 39.9 1938 42.3	1951         6.80         1951           1952         6.87         1952           1953         6.69         1953           1954         6.78         1954           1955         7.40         1955           1956         7.51         1956           1957         7.62         1957           1958         7.70         1958	2 3823 19 3 3869 19 4 3953 19 5 4284 19 6 4353 19 7 4540 19	122.8   125.0   125.0   140.8   13.8   156   207.9

# WHEEL TYPE-concluded

Nor	mal	Go	eds a			EN	GIN	E				FUEL											BEL				CAI	PACI	TIES			
	th S		P.M. dard Is			nders-	Cu. In.	rned Speed	ent	Main Bearings	in Bearings			Injector	Make	9	Make	Type	Tong	and I have	Type					(Gal.)			ts.)	(Qts.)		
Fourth	Fifth		Sixth	Reverse	Make and Model	Number of Cylinders Bore and Stroke In.	Piston Disp. Cu		Valve An angement	Number of Main	Diameter of Main Bearings Standard	Optional	Ignition Make	Carburetor or In		Governor Make	Oiling System	Cooling System	Plate Make and		Final Drive Ty	Diameter (In.)	Face (In.)	Normal R.P.M.	Steering Type	Cooling System	Fuel Tank (Gal.)	Crankcase (Qts.)	Transmission (Qts.)	Final Drive Case (Qts.)	Starting Method	fine Manches
.58 .48 .58 .48 .44 .44 .25 .25 .06 .06 .45 .45	9.3 6.8 9.3 6.0 6.1 6.1 6.2 6.2 6.8	14 10 17 1 14 10 19 1; 19 1; 18 10 12 10 12 10 15 1;	6.05 2.56 2.56 0.80 0.80 0.70 0.70 2.16 2.16 3.36	(m) (f) (f) (xx) (xx) (yy) (yy) (zz) (zz) (n)	Own 88D Own550HC O. 550DSL Own770HC O. 770DSL Own770HC O. 770DSL Own 99HC Own 99D GM 3-71	6 33 x4 6 33 x4 6 33 x4 4 3 x33 4 3 x33 6 3 x33 6 3 x33	265 265 265 144 144 216 265 265 302 302 213	1600 1600 1750 1750 1750 1750 1800 1800		4 4 4 4 3 3 4 4 4 4 4 4 3	25 g G 25 g O 25 g O 25 g O 21 g O 21 g O 21 g G 22 g G 25 g G		DR DR DR DR DR	MS-2 MS-2 Bos Bos Mar Bos Mar Bos Mar Bos		Own Own Bos Bos Pie Bos Pie Bos Own Bos GM	PS PS PS PS PS PP PP PP		88 88 88 88 88 88 88 88 88	SP SP SP SP SP SP SP SP	SG SG SG SG SG SG SG SG SG SG	107 s 107 s 107 s 12 12 12	7 1 7 1 6 1 2 6 1 2 7 1 4 7 1 4 9 9 9 9		FK FK FK SA SA SA FK FK	41 41 41 31 31 41 41 41 51 51	201 20 20 18 4 13 13 20 20 20 20 30 30 30 10	6 6 6 4 4 5 5 6 6 6 6 13 4	18 18 18 20 20 18 18 18 32 32 32	***	Ele Ele Ele Ele Ele Ele Ele Ele Ele Ele	111111111111111111111111111111111111111
.72 .72 .28	4.5 4.5 3.8	3	9 (1)	(d) (d) (1)	Own 6E	2-414x5 3-414x5 4-41-x5	212	1650 1650 1650	1	3 4 5	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		Own Own Own		Don Don Don	Own Own	PP	Pu Pu Pu	Rec Rec Rec	SP	SG SG SG		71	1350 1350 1150		7 71 73	15 15 22	12 13 16	25 25 32	**	Ele Ele	1
				8.00 5.00 3.00	Br 23	1 - 23 4 x 23 1 - 3 x 3 1 - 3 x 3	19	3200 3300 3300	L		G G		Br Br Br	Br Br	Uni Uni Uni	Br Br Br	PS PS	AAA	TD TD		SGC SGC SG	7	4	1300	SA SA		1139	3	1 1 3	1 1 3	HC HC	1 1 2

(zz) = 2.50 and 4.30.

A = Air.

AC = A.C. Spark Plug Co.

Ad = Adjustable.

AL = Electric Auto-Lite Co.

Au = Auburn Clutch Co.

BB = Borg & Beek Div.

Bos = American Bosch Corp.

BF = Briggs & Stratton Corp.

B- Berg and Beck or Rockford.

B-S = Bosch or Scintilla.

Bu = Buda.

CH = Chain.

CL = Cam and Lever.

CH — Chain.
CL — Cam and Lever.
CL — Cam and Lever.
Centth.
Centth.
Cont—Continental Motors Corp.
D—Distillate.
DF—Divided asle front asle knuckle.
DFS—Divided asle, front asle knuckle.
Dro—Donaldson Co.
DP—Doualdson Co.
DP—Double plate, dry.
DR—Delco-Remy Div.

DSP—Dual single plate, dry.
EG — Electric or gasoline starting.
Ete — Electric starting.
Ens — Ensign.
FK — Front axle knuckle.
FM — Fairbanks Morse & Co.
FO — Fork type.
G — Gasoline.
GM — General Motors Corp.
GS — Gasoline starting engine.
Han—Handy (invernor Corp.
HC — Hand craok.
I — In head (Yalves).
IG—Internal gear.
K — Kerosene.

IG—Internal gear.
K—Kerosen (Valves).
L—I," head (Valves).
L—Loug Mfg. Co.
LP—Limid petroleum gas.
LP—Limid petroleum gas.
Mar—Marvel-Schelber Carburetor Div.
M-C—Marvel-Schelber or Carter.
MD—Multiple dae, operating dry.
MS-Z—Marvel-Schelber or Zenith.

M-Z-Marvel or Zenith.

M-No or none.

NA-Not available.

NA-Not Equipment Co.

N-P-Novi or Pierce.

NS-Non-Equipment Co.

N-P-Novi or Pierce.

NS-Non-Equipment Co.

O-Besel furd.

O-Besel furd.

O-Besel furd.

O-Royan or Rocktord.

P-Pressure.

Per-Persins.

Pie-Perce Governor Co.

Ps-Pressure and splash.

Na-None.

Rockford of Auburn.

Roc-Rockford Clutch Div.

Ros-Rossa-Master.

RT-Rubber tures.

SA-Solid axle.

SS-Spiral bevel grar.

SB Spiral bevel gear.
SF Solid axle or front axle knuckle.

SG—Spur gear.
SGC—Spur gear and chain.
SH—Spur gear and helical gear.
SM—Standard Motors.
SO—Single plate, operating in oil.
SP—Single plate, dry.
SR—Steel wheels or rubber tires.
SI—Standard.
TD—Twin Dise Clutch Co.
TF—Tractor fuel.
TS—Thermo-syphon.
Uni—United Air Cleaner Div.
Var—Various.
Wico—Wico Electric Co.
WG—Worm gear.
Wis—Wisconsin Motor Corp.
WS—Worm and sector.
Ze—Zenith or Carter.
Zen—Zenith Carburetor Div.

# Progress in Engine Design—continued

# Average for Passenger Car Engines-Based on Number of Chassis Models Offered for Years 1936-1952 Based on Engine Models for 1953-1958

	Average		Average Compression		Average B. M. E. P.		Bore. Stroke	and Dist	lacement		
1936 1937 1938 1939 1940	Hp. per Cu. In. of Displacement	.417 1938 .412 1939 .415 1940	6.25 6.32 6.32	1936 1937 1938 1939 1940	at Maximum Hp. (lb. per sq. in.) 92.3 93.1 91.2 92.7 93.9	1936 1937 1938 1939 1940		Bore (In.) 3.39 3.25 3.25 3.24 3.25	Stroke (1n.) 4.32 4.31 4.27 4.23 4.17	Disp. (Cu. In.) 267.9 277.6 271.1 255.3 254.0	
1941 1942 1946 1947 1948 1949 1950		.445 440 1946 437 1948 437 1948 453 1956	6.60 6.77 6.73 6.78 6.93	1941 1942 1946 1947 1948 1949 1950	96.7 98.5 94.5 94.5 95.3 97.3	1941 1942 1946 1947 1948 1949		3.26 3.26 3.27 3.28 3.29 3.35 3.37	4.15 4.18 4.11 4.18 4.12 4.10 4.11	252.1 251.8 246.4 250.4 247.1 250.0 256.1	
1951 1952 1953 1954 1955 1956 1957 1958		.488 195; .518 195; .564 195; .639 195; .691 195; .765 195	7,14 7,31 4 7,31 5 7,87 6 8,47 7 8,75	1951 1952 1953 1954 1955 1956 1957 1958	99.5 101.4 106.0 113.1 118.1 127.2 133.4 138.8	1951 1952 1953 1954 1955 1956 1957 1958		3.40 3.34 3.40 3.46 3.62 3.72 3.74 3.86	4.00 3.96 3.97 3.93 3.57 3.63 3.60 3.61	250.4 251.6 241.4 249.5 271.8 297.3 304.1 325.9	

# SMALL GASOLINE ENGINES \

1958

								ENG	INE					OV- NOR	Type		TEM		
MAKE	Use	Cycles		ders	Stroke	нашел	Ratio	uo	Horse	power	E.	-			tem Ty				peq
MODEL,	Designed for	Number of C	Туре	No. of Cylinders	Bore and Str (In.)	Total Dieplacemen (Cu. In.)	Compression (to -1)	Valve Lecation	Rated at RPM	Certinupus at RPM	Terque—Lh at RPM	Weight (Lb.)	Used	Тупе	Ignition System	Тупе	Make	Fuel Used	Starting Method
							A	RC	OOLED										
Briggs & Stratton 68 6B-H 6B-S 6B-HS 8B-H 9 9 14 19 23A	General Purpose Lm, Tils, In Ha, Af, Lm Lm, Tils, In Lm, Tils, In General Purpose General Purpose General Purpose General Purpose General Purpose	4 4 4 4 4 4 4 4	Ver Hor Hor Hor Ver Ver Ver Ver		2 % x1 % 2 % x2 % x	6.30 6.30 6.30	6.00 6.00 5.40 5.40 5.60		2.25-3600 1.75-3200 1.75-3200 2.75-3600 2.75-3600 3.36-3600 5.25-3600 7.00-3600	1.90-3600 1.90-3600 1.40-3200 1.40-3200 2.34-3600 2.34-3600 2.82-3600 4.42-3600 5.95-3600 7.62-3600	3.29 3800 2.85 3200 2.45 3200 4.02 3600 4.90 3600 7.60 3600 10.20 3600	21 181-5 191-5 25 61 78	******	Pn Pn Pn Pn Pn Pn Me Me Me	Mag Mag Mag Mag Mag Mag Mag Mag	Car Car Car MV Car Car Car Car	Own Own Own Own Own Own Own Own Own	G G G G G G G G G G G G G G G G G G G	Rb Rb Rb Rb Rb Rb Ht Ht
VS-200	Lm, Au Lm, Au Lm Lm Lm Lm Lm Lm Lm SS, Pu, Af, Lm GS, Pu, Af, Lm Lm, Tils L	222224444444444444444444444444444444444	Hor Ver Hor Hor Ver Hor Hor Hor Hor Hor Hor Ver Wer Ver Wer Ver		17, x13, x13, x13, x13, x13, x13, x13, x13	4.50 5.76 5.76 5.78 6.65 7.20 7.20 7.20 8.30 8.30 8.30 8.30 8.30 9.50 9.50 10.20 10.20 25.00			2.00-3800 2.50-3800 2.50-3800 2.00-3600 2.00-3600 2.00-3600 2.00-3600 2.00-3600 2.00-3600 3.00-3800 3.00-3800 3.00-3800 3.00-3800 3.00-3800 3.00-3800 4.00-3800 4.00-3800 6.00-3800			100 199 173-5 199 422 21 199 199 200 34 344-5 400 899 104 104	* * * * * * * * * * * * * * * * * * * *	Pn Pn Pn Pn Pn Pn Pn Pn Pn Pn Pn Pn Pn P	Mag	Car Car Car Car Car Car Car Car Car Car	O-C Own O-C	60 60 60 60 60 60 6 6	Arr
Continental AU10	General Purpose General Purpose	4	(b) (b)	1	25 8x2 25 8x2	10.80		L	4.00-3600 4.00-600		4.90-3000 29.40-500		Y	MA	Mag Mag	Car Car	Til	G	BF
Cushman Husky-M6 Husky-M7 Husky-M8 Husky-M9	General Purpose General Purpose General Purpose General Purpose	4 4 4	Ver Ver Ver	-	28 6x284 25 6x284 27 6x284 3x284	12.30 14.90 17.80 19.40	5.10	L	4.10-3800 6.10-3800 7.30-3800 8.00-3800	5.40-3200 6.70-3200	5.80-2600 9.00-2600 11.50-2600 13.20-2600	84	¥ ¥ ¥ ¥	Fb Fb Fb	Mag Mag Mag	Car Car Car	Till Till Till	G G G	Pi Pi Pi
Gravely L	Garden Tractor	4	Ver	1	334x334	29.50	5.00	L	5.00-2500	4.00-2500	6.60-2500	78	Opt		Mag	Car	Zen	G	Bi
15	Generator Sets Chain Saw Chain Saw GS, Pu Chain Saw Generator Sets Chain Saw GS, Pu Pumps GS, Pu Pumps GS, Pu Generator Sets	22222222222	Ver Ver Ver Ver Ver Ver Ver Ver Ver Ver	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	18 x11 2 x1 5 x 2 x 1 5 x 2 x 1 5 x 2 x 1 5 x 2 x 1 5 x 2 x 1 5 x 2 x 2 x 2 x 2 x 2 x 2 x 2 x 2 x 2 x	1.85 4.32 5.05 6.63 6.90 6.97 8.00 8.45 8.45 11.50 12.62			0.43-3800 4.00-5800 6.00-5800 2.50-3600 5.50-4800 3.00-3600 7.00-4800 3.50-3600 5.50-3600 4.50-2800 7.60-3900	5.50 4800 7.00 4800		2014 (g) 2875 90 2876 (h)	* * * * * * * * * * * * * * * * * * * *	Ce Pn Pn Ce Ce Ce Ce Ce Ce	Mag Mag Mag Mag Mag Mag Mag Mag Mag	Car Car Car Car Car Car Car Car	Zen TB TB Til TB TII TB Own Til Own Til	6666666666	RRARRARRARRARRA
acobsen J-100 J-125 J-175 J-225	Lawn Mowers Lawn Mowers Lawn Mowers Lawn Mowers	2 2 2 2	Hor VH VH Ver	****	2x11/2 2x11/2 21/x11/4 21/4x2	4.70 4.70 6.20 7.95	5.50		1.80-3600 2.25-3600 3.00-3600 4.00-3600	1.90-3600 2.55-3600	4.38-3600		Y Y Y	Av Av	Mag Mag Mag Mag	Car Car Car	TH TH TH TH	G0 G0 G0	EEEE
Kohler K90 K160 K330 K660	General Purpose General Purpose General Purpose General Purpose	4 4 4	Hor Hor Op	1 1 1 2	28 x2 27 x21/2 35 x31/4 35 x31/4	8.86 16.22 33.60 67.20	6.00	L	3.60-3600 6.80-3600 12.50-3200 24.00-3200	5.50-3600 10.50-3200	20.30 3200	178	Y	Fb Fb Fb	Mag BM BM Mag	Car Car Car	Cart Cart Cart CZ	G,K G,K G	888
Auson H20, HR20+ H25, H825, HR25+ H30, H830, HR30+ H35, H835, HR35+ H40, HB40, HR40+ V20 V25 V25 V35, V35 V40, VC40	GS, AC, Ha, Af GS, AC, Ha, Af, Pu GS, AC, Ha, Af, Pu GS, AC, Ha, Af, Pu GS, AC, Ha, Af, Pu Pumps, Lm Af, Lm Ha, Lm Af, Lm	4	Ver Ver Ver Ver Hor Hor Hor	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	21 x18 4 2 4 x1 1 2 1 2 x2 1 2 1 2 x2 1 2 1 2 x2 1 2 1 1 x18 4 2 1 x 18 4 2 1 2 x2 1 2 1 2 x2 1 2 1 2 x2 1	7.35 7.61 11.04 11.04 17.85 6.21 7.35 7.61	6.20 6.60 6.60		2.65-3600 3.00-3600 3.50-3600 4.00-3600 2.00-3600 2.66-3600 3.00-3600 3.50-3600	2.40 3600 2.80 3600 3.20 3600 5.05 3600 1.60 3600 2.12 3600	3,85-3600 4,40-3600 6,50-3600 9,03-3600 9,03-3600 0,2,90-3600 0,3,85-3600 4,40-3600 0,5,50-3600	21 21 36 36 36 36 19 19 19 19 36 36 36 36 36 36 36 36 36 36 36 36 36	Y Y Y Y Y Y Y Y	Pn Pn Pm Pm Pm Fb Pn Pn Pm	Mag Mag Mag Mag Mag Mag Mag Mag Mag	Car Car Car Car Car Car Car	Wal Wal Wal Val	G,K G,K G,K G,K G,C G	8 8 8 8 8 8 8 8 8 8 8
AcCulloch 39 MAC-35 D-44 39 Super 55 Super 47 77 99	Chain Saws	2 2 2 2 2 2 2 2 2 2	Ver Ver Hor Ver Hor Ver Hor	1 1 1	184 x184 184 x184 2x184 2x184 2x184 214x184 214x184 232x134	3.30 4.30 4.70 5.00 5.00 7.35	7.20 7.20 7.80 7.00 8.00 8.00 6.80 6.80	Ro				20 20 21 29 24 21 32 51	N Y Y Y Y	Av RV Av Av Ge RV	Mag Mag Mag Mag Mag Mag Mag	Car Car Car Car Car	Own	GGGG	-
Mustang 40 40M 50 75	General Purpose Marine General Purpose General Purpose	4 4 4	Ver Ver Ver	1 1 1 1	21/2×3 21/2×3 21/2×3	14.70	4.50 4.50 5.70 5.70	L	4.30-3200 4.30-3200 5.25-3200	4.30-3200 4.30-3200 5.25-3200 7.00-3200	8.40-2200 8.40-2200 9.20-2500	81	Y	Fb Fb Fb	Mag Mag Mag Mag	Car		G,K G G G,K	

# 1958 / SMALL GASOLINE ENGINES

								ENG	SINE					NOR	Type		TEM		
MAKE	80	Cycles		lers	Stroke	ement	Ratio	uc	Horse	power	ď				em Ty				poq
MODEL	Designed for	Number of C	Type	No. of Cylinders	Berie and Str. (In.)	Total Displacemen (Cu. In.)	Compression (to -1)	Valve Location	Rated at FIPM	Continuous at RPM	Torque Lb. at RPM	Weight (Lb.)	Used	Type	Ignition System	Туре	Make	Fuel Used	Starting Method
Mustang —continued							AIR C	OOL	ED continu	red									
75ES 75M 75MES 75MES	General Purpose Marine Marine Motorcycle	4 4 4	Ver Ver Ver	1 1 1 1	21,x3 21,x3 21,x3 21,x3	19.40 19.40 19.40 19.40	5.70	L	7.00-3200 6.50-3200	6.50 3200 7.00 3200 6.50 3200 9.50 5000	11.80 3200 11.00 3200	86 138	N		Mag Mag Mag Mag	Car Car Car	MS MS MS Am	G G G	Éle Ar Ele Pe
Onan AK AJ LK ACK VB CCK CW	Generator Sets GS, Rf, Af GS, Rf Generator Sets General Purpose Generator Sets	4 4 4 4 4 4 4	Ver Ver Op Vee Op Op	1 1 2 2 2 2 2	2\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	12.20 14.90 25.00 38.80 45.70 50.00 88.00	6.25 5.50 6.25 6.25 5.50		5.50-3600 5.10-1800 13.80-3600 19.25-3600 13.60-3000	II.82-3600 II.86-3600 4.34-1800 10.00-3600 16.20-3600 11.50-3000 16.50-1800	8.00-2100 14.90-1800 20.00-3600 29.80-2800 27.80-1800	150 114 125 140 148	AAAA	(d) (d) (d) Me Me (d) Fb	Mag BM BM Mag Mag BM Mag	Car Car Car Car Car	Cart Cart Cart Til MS MS	0000000	HE HE HC Ele HE
Power Products AH47-1072 AH47-1101 AH81-40001 AH65-70001	General Purpose General Purpose General Purpose General Purpose	2 2 2 2	Ver Ver	1 1 1 1	2x134 2x134 234x154 234x154	4.70 4.70 8.10 6.50			3.00-			13%	Y	Fb Fb Fb	Mag Mag Mag Mag	Car Car Car	Til Til Til Til	GO GO G	Rc Rc Rc
West Bend 390 390 510 510 645	General Purpose General Purpose General Purpose General Purpose General Purpose General Purpose	2 2 2 2 2 2	Hor Ver Hor Ver Hor Ver	1 1 1 1 1 1	13 4x15 8 13 4x15 8 2x15 8 2x15 8 21 4x15 8 21 4x15 8	3.90 3.90 5.10 5.10 6.45 6.45		Re Re Re Re Re	1.50 3600 3.00 4500 3.00 4500 4.00 4500	1.50-3600 1.50-3600 3.00-4500 3.00-4500 4.00-4500 4.00-4500	2.30 3600 3.60 4500 3.60 4500 4.80 4500	145 135 135 135	N N	Av	Mag Mag Mag Mag Mag	Car Car Car Car Car	Till Till Till Till Till	G G G G	RA Rc Rc Rc Rc
Wisconsin ACN BKN AENL AGN TH THD	General Purpose General Purpose General Purpose General Purpose General Purpose General Purpose	4 4 4 4 4	Ver Ver Ver Ver Ver	1 1 1 2 2 2	25 x28 4 27 x28 4 3x31 4 31 2x4 31 x31 4 31 x31 4	17.80 23.00 38.50 53.90	5.78 5.41 6.21 5.28 5.44 5.44	LLL	7.00-3600 9.20-3600 12.50-3200	4.86 3600 5.60 3600 7.40 3600 10.00 3200 13.10 2600 14.40 3200	12.00-2600 16.50-2300 27.00-1900 34.00-2000	76 116 186 1 226	444	Fb Fb Fb Fb Fb	Mag Mag Mag Mag Mag Mag	Car Car Car Car	SZ SZ Zen Zen Zen Zen	G G G	BP BP BP Hc
							W	VATE	R COOLED										
Kohler L160	Generator Seta	4	Hor	1	23/sx23/g	16.22	6.00	L	6.60 3600	5.50-3800	9.70-3600	100	Y	Fb	Mag	Car	Cart	G	BP
ABBREVIATIONS  *—Reduction gear model.  **—211% lbs. for 6.22 model; 19% lbs. for EZ-6 model.  **—6enerator set use, 110 lbs.; pump use, \$\$1 bs.  (b)—Inclined 20° up from horizontal.  (d)—Flyweights on ramshaft.  (e)—Centrifugal.  Cs—Chariever or Zenith.  Ele-Electric.  Cart—Carter Carburetor Corp.  Cart—Carter Carburetor Corp.  Cart—Carter or Zenith.  Ele-Electric, rope or automatic rewinding rope.  Fh—Flyball.  G—Gasoline.  GO—Gasoline or oil mix.  GP—General purpose.  GS—Generator sets.  Ha—Home appliances.  Hbp—Hand crank, belt or pulley.  He—Hand crank.									HEA - H  Hor - Ho  HR - Ha  I - Valve  In Indt  K - Kere  L - "I."  MA - M  Mag - M  MS - M  MV - M  N - No o  O-C - O  O-C - O  O-T - O  O-T - O	seene, head, valves wn mowers, echanical or fagneto, echanical, arvel-Scheblixing valve, or none, wn or Carter posed, tional, wn and Tillo wn and Zeni	electric on grope.  rope.  at side. air vane. er Carburete				Pn P	neumateumateumateumateumateumateumateumat	automa belt or ves. tion equ rope. rope or valve. Schebler and Br	tic rewine pulley.  iipment. electric. or Zenith	ling ro

## U. S. Passenger Car Engine Trends. Weighted Average of Car Weights and Engine Hp.

# Based on Number of Units Sold

1936 1937 1938 1939 1940 1941	 No of Units Sold* 3.404.497 3.483,752 1.891.021 2.653.377 3.415,905 3,731,166	Gross Shipping Wgt. of Cars Sold (1b.)† 10.190,000,000 10.470,000,000 5,743,000,000 7,950,000,000 10.511,000,000 11.793,000,000	aress Max. Hp. of Cars Sold; 291,000,000 303,900,000 169,200,000 239,200,000 312,100,000 356,800,000	Average Weight (lb.) 3.000 3.005 3.035 2.996 3.077 3.161	Average Hp. 86 87 89 90 91
1946	 1.815.196	599,600,000	181,200,000	3.303	100
1947	3.167.231	10.528,700,000	317,400,000	3.324	100
1948	3.490.952	11.552,200,000	352,600,000	3.309	100
1949	4.838,342	15.901,000,000	500,100,000	3.286	104
1950	6.326,438	20.624,200,000	660,400,000	3.260	104
1951	5.060,903	16,491,566,000	541,970,081	3.259	107
1952	 4,158,394	13,626,614,000	467.497.469	3.348	112
1953	5,738,989	19,208,005,555	690.604.332	3.436	131
1954	5,535,464	18,708,481,077	749.762.007	3.380	135
1955	7,169,908	24,408,698,004	1.202.887.133	3.404	168
1956	5,955,248	20,383,147,845	1.105.273.284	3.423	188
1957	5,982,342	21,139,498,954	1.226.478.489	3.534	205

<sup>†</sup> Shipping weight of 5 passenger, 4 door sedan taken as typical and used in conjunction with new registrations of each model.

† Maximum horsepower taken from previous Statistical Issues and used in conjunction with new registrations of each model.

† R. L. Polk & Co. registrations of new passenger cars.

Chilton's MOTOR AGE, APRIL, 1958

# Small Gasoline Engine Service Data

	1	GNITION S	YSTE	M			VA	LVE	SYS	TEM				FU	FUEL SYSTEM			PISTON RINGS				
		Sor				opet		eat igie			ilve ning							om- ssion	(	N		
MAKE AND	3									n- ko	E:										_	
MÖDEL	Breaker Point Gap (In.)	Make and Model	Size (Mm.)	Gap (In.)	Intake (In.)	Exhaust (In.)	Intake (Deg.)	Exhaust (Deg.)	Opens (Deg. B.T.C.)	Closes (Deg. A.B.C.)	Opens (Deg. B.B.C.)	Closes (Deg. A.T.C.)	Timing Mark Location	Fuel Pump Make	Fuel Screen Location	Carburetor Float Level	Number	Size (In.)	Number	Size (In.)	Pistons Removed From	
Friggs & Stratton	.020 .020 .020 .020 .020 .020	Ch- J-8 Ch- J-8 Ch- J-8 Ch- J-8 Ch- J-8 Ch- J-8 Ch- J-8	14 14 14 14 14 14	.025 .025 .025 .025 .025 .025	.006 .006 .009 .008 .008	.010 .010 .010 .015 .015	45 45 45 45 45 45	45 45 45 45 45 45					CC CC CC CC	Own Own Own	FF	PCB PCB PCB PCB	2 2 2 2 2 2 2	10 10 10 10 10 10 10 10 10 10 10 10 10 1	1 1 1 1 1 1 1	16 3 16 16 16 16 16 16 16 16	***	
100, A2100, VS2100, AUS3100 VS100, VS3100 AUS1000, VS1000, VS1100, A1200	.020 .020 .019 .020	Ch-J-8 Ch-H-10 Ch-H-10 Ch-J-8 Ch-H-10	14 14 14 14 14 14	.025 .025 .025 .025 .025 .025	.010 .010 .010 .010	.010 .010 .010 .010 .010	44 44 44 44	44 44 44 44 44					CCr CCr CCr CCr			(1) (1) (1) .160 (3)	2 2 2 2 2		1 1 1 1			
	.020 .020 .020 .029 .029 .019	Ch-H-112 Ch-J-8 Ch-J-8 Ch-H-10 Ch-H-10 Ch or AL	14 14 14 14 14	.025 .025 .025 .025	.010 .010 .012 .012 .014	.010 .010 .012 .012 .014	44 44 44 44 45	44 44 44 44 45	20	50	50	6	CCr CCr CCr	Ovn		.160 .160	2 2 2 2 2 2	'n	1 1 1 1	4	BAAAAB	
ontinental AU10, AU10R ushman M6, M7, M8, M9 ravely L omelite 15 4-20 6-22, EZ6 8, 20	.020 .015 .015 .015	Ch-F14V AL-TT10 Ch Ch-H08A Ch-H08A	18 14 14 14 14	.033 .025 .025 .025 .025	.008	.015	45 45	45 45	20 TC	60	63 60	17 20	ICG	T-8 T-8	GSB GT TP TP	184	2 2 2 2 2	16	1		8 8	
5-30N, 7-29 35 23 36 24 37	.020 .020 .020 .020 .020	Ch-HO3 Ch Ch Ch Ch	14 14 14 14 14 14	.025 .025 .025 .025 .025 .025										N Own	TP	NF NF	3 2 2 2 2 2	Name of the least			8	
37 Cobsen J-100 J-105 J-125 J-175 J-175 J-176 K160 K160 K30 K30 K660	.020 .020 .020 .020 .020 .020 .020 .020	Ch-J-11-J <sup>5</sup> Ch-J-11-J <sup>5</sup> Ch-J-11-J <sup>6</sup> Ch-J-11-J <sup>6</sup> Ch or AC	14 14 14 14 14 14 14 14	.025 .025 .025 .025 .025 .025 .025 .025	.006 .006 .006 .006	.012 .017 .017 .020	44 44 44 44	44 44 44 44	16 16 16 20 20	36 36 36 52 52	38 40 40 52 52	14 12 12 20 20	Fly Fly Fly Fly	N SC SC SC SC SC	TVC TVC TVC TVC GT TP FP TP		2 3 2 2 2 2 2 2	*********	N N N 1	+10+10+10+10+10		
H20, HR20, H25, HB25, HR25, H30, HB30, HR30, V20, V25	.020	Ch-J-8	14	.030	.010	.010	45	45	16	48	48	10	CG	N	GT	.160	2	à	1	34	A	
H35, HB35, HR35, H40, HB40, HR40, V35, VC35, V40, VC40 P25 V30, cCulloch MAC 35 39 D44 49, 77 Super 44, Super 55	.020 .020 .020 .018 .018 .018	Ch-J-8 Ch Ch-J-8 Ch-J-8-J Ch-J-8-J Ch-J-8-J	14 14 14 14 14 14 14	.030 .030 .030 .025 .025 .025		.010 .010 .010		45 45 45	16 10 16 56 56 59	48 46 48	48 50 48 76 76 78 79	10 10 10	CG Fly Fly Fly Fly Fly	AC N Own Til Own Til	GT GT GT GT FP PC FP	.160	2 2 1 1 1 1 1 1 1	· · · · · · · · · · · · · · · · · · ·	1 1 1 1 1 1 1 1	1/8 1/8 1/8 1/8	A A A B B A B A B B A B B	
99 AK AJ LK ACK VB CCK CW CW	.018 .020 .022 .020 .020 .015 .020	Ch-J-B-J Ch-H-9 Ch-H-9 Ch-H-9 Ch-H-9 Ch-H-9 Ch-H-9 Ch-6MJ	14 14 14 14 14 14 14 14	.025 .025 .025 .025 .035 .030 .025	.014 .011 .011 .007 .008H .015	.014 .011 .011 .007 .008H .015	45 45 45 44 45 45 45	45 45 45 44 45 45 45	10 10 10 22 15 10	58 58 46 58 63 46 58	56 46 46 46 61 46 58	22 22 10 10 17 10 10	TGC TGC TGC TGC	N Own Own Own Own Own Own	Car FF FF GT GT FF	Since of the second of the sec	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	*****	1 1 1 1 1 1 1 1 1	10-10-10-10-10-10-10-10-10-10-10-10-10-1	*****	
wer Products AH47, AH65, AH61	.020 .020 .015 .015 .015 .015	Ch-H-12-J Ch-H-12-J Ch or AC Ch or AC Ch or AC Ch or AC Ch or AC	14 14 14 14 18 18 18 18	.040 .040 .030 .030 .030 .030	.012 012 .012 .012 .008	.012 .012 .012 .012 .016	45 45 45 45 45 45	45 45 45 45 45	5 5 20 20 25	50 50 60 60 75	45 45 60 60 115	10 10 20 20 35	CGM CGM FFS FFS FFS	N B-A	GT TCr ST ST ST ST ST SP	Due flow Diss size solds Public protection surface	2 2 2 2 3 3 3 3	4444	1 1 1 1 1	16 16 17 16 16 16	BBAAAAA	

- ABBREVIATIONS

  1—Up to 14023, .110 to .130; after 14023, .150 to .170; Carter, 156.

  2—Or Ch-H-11-J.

  3—Up to 14023, .110 to .130; after 14023, .150 to .170.

  4—From top of float to edge of bowl cover, without gasket.

  5—Or Auto-Lite.

  6—For horizontal application only; for vertical application, Ch-J-7-J; also Auto-Lite.

  A—Above.

  AB—Above or below.

  AC—AC. Spark Plug Div.

  AL—Electric Auto-Lite Co.

- FF-Fuel filter.

- B—Below.
  BA—Blackstone or A.C.
  BN—Ball and needle bearings.
  CC—Cant.
  Car—Carburetor.
  CC—Canshaft and camgear.
  CG—Camshaft and crankshaft.
  CG—Camshaft gear cover.
  CGM—Camshaft gear and magneto gear faces.
  Ch—Champion Spark Plug Co.
  CI—Cast and Insert.
  CI—Cast and Ins

  - - PC-Fuel pump and carburetor.

- TVC Tank valve and carburetor float cover.

# New Passenger Car Registrations by Makes by States\*

JANUARY, 1958

	Buick	illac	rulet	sler	Soto	Dodge	Edsel	Ford	perial	Lin- coin	cury	mobile	Pack- ard	Ply- mouth	Pon- tiat	Ram- bler	Stude- baker	Dom.	For- eign	Total
Alahama	325	91	1264	57	29	119	68	1135	13	25	120	307	2	305	212	67	25	1	199	4,36
Arizona	126	42	497	22	16	50	31	397	13	18	45	145	2	113	81	63	11	*****	175	1,84
Arkansas	354	83	1372	46	49	175	43	1331		20	163	333	1	413	261	60	45		120	4.87
California	1923	1242	9858	453	402	1352	475	7518	255	358	1005	2199	21	3214	1651	774	232	vacco	4617	37.54
Co.orado	297	94	1325	81	60	191	99	1038	21	44	199	334		408	249	145	48	10	258	4.90
Connecticut	309	160	1168	137	81	180	79	1017	30	54	128	355	13	503	286	154	56		520	5.32
Delaware	98	29	471	29	32	49	13	337	4	8	33	110	4	174	82	24	17		62	1.57
District of Columbia	64	76	543	53	30	77	10	329	22	13	50	120	1	208	111	22	14	3	146	1.89
Florida	802	459	4099	113	112	283	119	2897	75	150	318	814	6	1027	509	241	76		997	13.09
Georgia	662	206	2671	67	39	102	81	2375	7	53	223	531	1	389	618	47	24	4	514	8.59
Idaho	103	30	303	23	14	40	18	162	7	12	49	92	1	102	100	54	22		79	1.21
	2245	912	8409	486	355	693	301	5875	159	226	795	2675	30	2450	1763	853	301	61	544	28.83
1	964	352	3176	173	157	326	193	2521	66	68	396	1003	16	978	650	290	237	4	276	11.84
	535	115	2043	110	75	176	103	1930	19	33	202	564	2	480	429	152	84	- 2	133	7.18
66 contract	372	110	1453	97	77	169	71	1130	18	31	155	386	2	372	308	147	48		145	5.09
Kansas						83	74	799	13	17	140	291	1	337	222	56	26		74	
Kentucky	281	70	1243	42	38															3,80
Louisiana	451	125	2107	63	47	160	80	1830	27	29	174	483		459	437	45	38	2	196	6,75
Maine	139	40	458	18	24	76	15	395	5	11	58	104	and the	131	99	46	31		156	1,80
Maryland	425	127	2232	132	101	254	75	1540	41	39	163	498	2	800	444	112	45		363	7,39
Massachusetts	556	212	1548	156	133	195	68	1391	48	63	201	655	1	667	411	274	41	14	421	7.05
Michigan	1328	767	5182	256	311	441	503	3680	73	158	599	1539	8	1526	1096	459	129	5	500	18.56
Minnesota	461	167	2090	95	94	202	92	1615	24	42	221	511	5	468	438	256	83	1	135	7.00
Mississippi	199	35	678	11	9	29	22	605	6	4	37	151		78	132	11	19		23	2.04
Missouri	534	149	2147	86	92	192	61	1655	34	40	162	494	1	603	362	113	65		137	6.92
Montana	138	49	358	23	15	54	24	363	6	9	56	127		106	73	55	32	1	49	1.53
Nebraska	284	81	910	46	32	106	46	903	11	25	114	265		283	198	83	44	14	84	3.53
Nevada	21	23	131	17	9	21	15	130	2	11	19	53	2	38	41	9	17		57	61
New Hampshire	43	16	218	9	9	21	9	133	1	2	26	56	_	48	48	31	12		95	77
Now Inserv	981	569	3450	424	306	582	220	2409	134	132	417	1124	15	1736	795	390	185		791	14.66
New Jersey	122	22	400	28	19	37	25	344	6	18	34	92	10	93	115	42	15		76	1.48
New Mexico		1323		925	621	1211	479	5686	285	346	885	3412	21	3269	1926	793	315	20	2327	33.50
New York	2596		7064				49		15	33	142	507		501	365	90	72		145	
North Carolina	485	126	1507	96	84	181		1518	13				3					1		5,92
North Dakota	147	28	541	51	26	79	22	306	9	14	60	154	1 - 1 - 1 - 1	197	87	68	28	*****	29	1,84
Ohio	1634	647	5859	404	340	813	311	4350	104	169	758	1801	22	2064	1386	401	177	42	632	21,91
Oklahoma	269	79	1131	32	38	76	38	903	11	27	101	290	2	270	219	75	42	1	117	3,71
Oregon	243	85	1090	23	42	87	60	982	23	38	116	215	3	263	225	124	31		517	4.16
Pennsylvania	1760	688	6292	545	445	878	228	3869	135	163	716	1946	26	2544	1362	535	279	11	817	23,23
Rhode Island	120	70	378	38	33	48	27	367	11	18	40	179		180	79	53	10		160	1,81
South Carolina	385	97	1365	45	47	93	50	1154	14	21	128	310	1	361	291	89	25	9	185	4.65
South Dakota	191	47	697	43	29	88	12	629	11	18	72	207	2	187	157	74	33	2	45	2.54
Tennessee	521	115	1802	51	46	169	77	1377	16	32	149	452	4	443	315	105	42		135	5.85
Texas	1852	498	8127	251	208	584	265	6019	116	128	624	1969	8	1899	1393	275	177	- 6	768	25.18
Utah	128	43	367	19	23	43	24	237	5	9	67	95	1	108	95	41	4		100	1.40
Vermont	35	15	168	6	8	22	5	136	3		19	41		61	35	24	9		72	65
	568	167	1845	113	100	296	114	1542	29	50	237	487	1	788	477	160			359	7.40
	299	57	1076	80	55	190	71	878	18	38	182	264	3	344	250	160			587	4.61
Washington		58	752	57	43	110	69	669	13	24	120	243	3	270	196	46	50		99	3.0
West Virginia	220												3			458				
Wisconsin	594	225	1897	122	83	236	81	1413	20	56	200	610	3	513	497 56				194	7,27
Wyoming	104	32	266	12	13	28	13	219	5	7	36	88	1	59	36	26	12	1	63	1,04
Total	27293	10853		6266 8206	5049 8462		5028	79738 110454	1992 2233	2904 3076	10954	29679 31787	250	32900 41262	21641 24015	8653 5210		228 2042	19293	381,93

<sup>.</sup> Data from R. L. Polk & Co.

# New Car and Truck Registrations by Months, 1957-1956

Based on data from R. L. Polk & Co.

		NEW PASSE	NGER CARS				NEW	TRUCKS	\$		
ſ	19	57	19	56		19	957	15	56		
Menth January February March April May June July Cotober November December	Units 437,320 438,725 572,917 548,546 556,324 517,043 543,264 491,839 495,217 463,795 406,910 510,442	% of Total 7.31 7.33 9.58 9.17 9.30 8.64 9.08 8.22 8.28 7.75 6.81 8.53	Units 431.648 447.542 545.234 564.272 560.014 539.777 534.997 568.320 421.021 424.414 403.948 514.061	% of Total 7.25 7.52 9.16 9.48 9.40 9.06 8.98 9.54 7.07 7.13 6.78 8.63	Month January February March April May June July August September October November December	Units 56,979 62,129 74,668 75,438 82,269 71,329 79,117 77,053 78,156 76,899 61,888 62,160	% of Total 6.64 7.24 8.70 8.79 9.59 9.31 9.22 8.98 9.11 8.96 7.21 7.25	Units 66,141 65,478 77,220 82,670 84,997 78,501 78,404 79,831 72,420 76,052 66,983 65,669	% of Total 7.40 7.32 8.63 9.24 9.50 8.78 8.77 8.93 8.10 8.50 7.49 7.34		
Total	5,982,342	100.00	5,955,248	100.00	Total	858,085	100.00	894.366	100.00		

# Regional Sales of New Cars and Trucks

Based on data from R. L. Polk & Co.

		19	NEW PASSES	IGER CARS-	66		15	957 NEW	TRUCKS-1956					
Zon 1 2 3 4 5 6 7 8	New England Middle Atlantic South Atlantic East North Central East South Central West North Central West South Central West Montain	289,484 522,513 570,024 208,411	% of Total 5.25 19.07 12.74 24.51 4.84 8.73 9.53 3.48 11.85	Units 330.585 1.120.801 775.744 1.453.288 300.857 511.995 557.691 201.632 702.655	% of Total 5.55 18.82 13.03 24.40 5.05 8.60 9.36 5.39 11.80	Zone 1	34,883 108,488 121,730 142,704 62,057 84,731 125,246	% of Total 4.07 12.65 14.19 16.63 7.23 9.87 14.60 6.84 13.93	Units 42,585 115,755 130,796 152,968 66,934 84,549 123,675 53,963 123,141	% of Total 4.76 12.94 14.62 17.11 7.48 9.45 13.84 6.03 13.77				
9	Total—United States	708,789 5.982,342		5.955.248	100.00	Total	. 858.085	100.00	894,366	100.00				

States comprising the various regions are: Zone 1: Conn., Mass., Me., N. H., R. I., VL.—Zone 2: N. J., N. Y., Pa.—Zone 3: Del., D. of C., Fla., Ga., Md., N. C., S. C., W. Va.—Zone 4: Ill., Ind., Mich., Dhio, Wise.—Zone 5: Ala., Ky., Miss., Tenn.—Zone 6: Iowa, Kan., Minn., Mo., Neb., N. D., S. D.—Zone 7: Ark., La., Okta., Tex.—Zone 8: Ariz., Colo., Ida., Mont., Nev., N. M., Utah, Wyo.—Zone 9: Cal., Ore., Wash.

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Black & Decker Air Chuck

with collet clamp compensates for Valve Stem wear—gives top accuracy—maximum speed.



Exclusive Auto-Flow Coolant Control

distributes the right amount of coolant right on the work. No external hoses to get in the way.



Micrometer Stem & Rocker
Arm Grinding Attachment

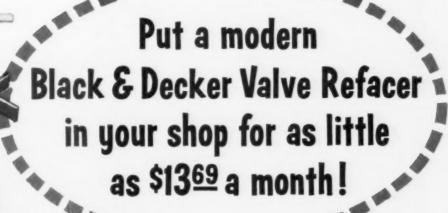
right on the tool—swings in easily for stem grinding. No waste motion to slow work!



Black & Decker Two-Motor Drive

gives you smoothest power constant speed for top accuracy, faster work!

# service today's engines!



Pays for itself with just one job a month—then pays you extra profits!

Compare this streamlined B&D Valve Refacer with your present tool:

Must you still chuck valve stems by hand—or do you have a B&D Air Chuck to speed your work?

Are all your accessories ready for action—or do you have to fumble in a drawer, then clamp them on?

How about coolant control? One central dial to set—or several knobs to turn, valves to open?

How's your tool's speed? Constant,

smooth-or variable on the valve face?

In a word, has your old valve refacer earned retirement?

A modern B&D Valve Refacer gives you an up-to-date shop—helps attract more customers and more profits. See for yourself how easy it is to own.

Call your nearby Black & Decker jobber or mail coupon to: The Black & Decker Mfg. Co., Dept. 5104, Towson 4, Md. (In Canada: Brockville, Ontario.)

Any refacer less accurate has earned retirement!

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Quality Electric Tools-Power-built for top performance

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Gentlemen:

☐ Please set up a free demonstration of your Valve Refacer.

☐ Mail me detailed literature.

Name....

Address

City Zone State

# TRANSMISSIONS-Conventional and Conventional with Overdrive

		INPE																	)	OVERDING	-				
				spa		Ra	Ratios		- 6u			Lubricant	it.									Lub	Lubricant		
PASSENGER CAR MAKE AND MODEL		'0'0 41		ward Spe					ins Meshi	(1)	pape	SO	SAE Viscosity Number	sity		ckout	Control	(udu) pe	(1-a1)	(.10	iller	рари	85	SAE Viscosity Number	sity
	IsunsM	iw launaM	oitsmotuA	No. of For	ferif	Second	bridT	Reverse	Synchrono Specify Ge	Capacity (p	Type	Summer	vernitw	Extreme	Type	Manual Lo	Downshift Accelerator	Minimum Cut-in Spe	Gear Ratio	Capacity (p	Separate F	Type Recommen	Summer	Winter	ementx3
AMERICAN MOTORS CORP. Rambler 6-8801, 5810		Opt	Opt	m					ST	70	MG	06	88	88	۵	>	>	52	700	114	>	MG	8	8	
8-5820	Std	o o o o	Opt	mm	2.57	1.55	98.	3.49	ST	4 23	MG	88	88	8 8	۵۵	>>	>>	25	.700	198	<b>&gt;&gt;</b>	MG	88	88	88
CHRYSLER CORP.																									
Chrysler 8-LC2, LC3-H		zz	Std	mZ		1.55	1.00		ST	234	MP	8	80	75	ZZ										
8-LC3-S De Soto 8-LS1, LS2		zzz	Std Opt Opt	m m Z	2.3	. 55	88.	2.86	ST	234	MP	88	88	75	ZZZ										
Darker 6-LD1, 8-LD2, LD3		222	Opt	. m 2	2.31	1.55	1.00	2.96	ST	23.4	MP	80	80	75	222										
Plymouth 6-LP2 8-LP2 8-LP2	Std	z o o z	0000		2.33	38.1.58	888	2.96	ST	23.23	M M M	888	888	75 75 75		>>	>>	28	700	8.0	zz	MA	88	88	27.
FORD MOTOR CO.																									
Edsel B-Ranger, Pacer	Std	Opt	Opt	ma	2.49	1.59	1.00	3.15	ST	314	MP	80	08		0.3	>	*	28	.722	3/1	z	MP	08	98	-
8-Custon 8-Fairlane, Fairlan 8-Thunde	P D D D D D D D D D D D D D D D D D D D	20000	00000	Zmmmni	2.37	1.59	8888	3.37 2.86 3.15	55 75 75	mmm **	MEEEE	8888	8888	8888	2000	>>>>	<b>&gt;&gt;&gt;</b>	28 8 8 8 2 8 8 8 8 8 8 8 8 8 8 8 8 8 8	720	7777	zzzz	ME	8888	8888	8888
B-All Mercury 8-Montclair, Park Lane	Std	NON	Std	ZmZ	2.49	1.50	1.8	3.15	ST	31.5		98	8	8	Za	z	>	88	.720	74	2		8	8	1
GENERAL MOTORS CORP.																									
		22	Std	m Z Z	2.15	1.37	1.8	2.28	ST	23.2	MP	8	8	8	zz								::		
Chevrolet 6-1100 1500 1700 8-94, 02, 73 Chevrolet 6-1100 1500 1700	Std	p ado	obt	Zmm	2.94	1.68	888	2.94	FS	000	WOO	888	888	88	200:	>>	>>	27	000		22	MO	88	88	
Oldsmebile 8-88, 588		ZZZ	o o o	n m a		1.37	88		ST	23.5	MP	38	8 8	88	ZZZ										
Pontiac 8-58-25, 58-27, 58-28		zz	Opt	200	2.21	1.32	1.00	2.51	ST	2	EP	8	06	96	zz										3 3
STUDEBAKER-PACKARD CORP.																									
		Opt	Std	mm					ST	334	MO	888	888	888	000	>>>	>>:	52 52	700	36	>>:	MO	88	88	
Studebaker 8-56B, 58H 8-56B, 58H 8-58H Golden Hawk	Std	Std	000	m m m	2.57	1.55	888	3.48	STS	38.	MOO	888	888	288	200		<b>**</b>	222	502	7.7	<b>&gt;&gt;&gt;</b>	WWW	888	222	888

# **AUTOMATIC TRANSMISSIONS**

							GE	GEAR RATIOS	S				TOF	TORQUE CONVERTER	ER	LUBRIC	LUBRICATION
PASSENGER CARS NAKE AND MODEL	RS	TRADE	Aype	Method of Selection	SELECTOR	1st or Low Range	Sud or Drive Range	etsibemetel to btg egnsR	peads 414	Reverse	Max, Upshiff Speeds Orive Range mph	Max, Kickdown Speeds	Mumber of Elements	Max. Ratio at Stall RPH onignal at	Type of Ceoling	Capacity - Refitt (pt.)	Type Recommended
AMERICAN MOTORS CORP. Rambler CHANGLER CORP.	6-5801 6-5810 8-5820 8-5880	Flash-O-Matic Flash-O-Matic Flash-O-Matic Flash-O-Matic	766 766 766	PB B B S	P.N.2.1.L.R R.N.02.01.L.P R.N.02.01.L.P R.N.02.01.L.P	22 40 20 20 20 20 20 20 20 20 20 20 20 20 20	47.47	8888		00000	50133	& 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	m m m m	2 12 1430 2 12 1430 2 12 1700 2 12 1680	WCC	2328	***
Chrysler De Sete	8-LC2 8-LC2 8-LC3 8-LC3	Torque Flite Torque Flite Power Flite	201	8888	R.1.N.2.D R.1.N.2.D R.1.L.D		1.45	0000			88 83 60	81 81 85	mmmm	8888	O O O O O	2228	***
Dode	8-LS3 8-LS3-8 8-LS3-8 8-LS3-8	Torque Flite Torque Flite Torque Flite Power Flite	20000	2222	8,8,8,8,8,8,1,8,8,1,8,1,8,1,8,1,8,1,8,1	2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3	5555	8888		22222	78 28 88 88 8	74 74	~~~~	2 30 18754 2 30 19305 2 30 18305 2 30 18806	MAN A	2222	<b>*</b>
	8-LD2-L 8-LD2-L	Power Flite Torque Flite Power Flite	1000	2000	R.I.N.2.D		8848	1 00			28.28	22.50	2000	3228	2000	8228	<<<
Imperial Plymouth	8-LD2-M 8-LD3 8-LV1	Torque Filte Torque Filte Torque Filte Power Filte	1001	2228	R.1.N.2.0 R.1.N.2.0 N.D.R.2.1		8888	888			36 36 6 6	83333	20000	22888	W W W	32228	
OJ BOTOM MODO	8-LP2 8-LP2 8-LP2	Power Fitte Torque Fitte Torque Fitte	2007	288	R.N.L.D R.I.N.2.D R.I.N.2.D		1.45	88			25.55	1522	2000	3228	AAA	2888	***
Edsel	8-Corsair, Citation 6-All	Edsel Edsel Fordomatic	100 100 100 100	188	P.R.N.DR.Lo P.R.N.DR.Lo P.R.N.DR.Lo	2 40 2 37 2 90	1.48	888			45	767	mmn	825	WC	233,	<<
	8-Fairlane, Fairlane 500	Fordomatic Cruise-O-Matic Fordomatic	2000	. دُدُدُ	P.R.N.DT.LC P.R.N.DT.LC	2555	1.47	8888			52.5	988	2000	2.10.1530 1.90.1500 1.90.1590	×××	2882	<<<
Lincoln Mercury	8-Monterey, Montclair 8-Park Lane	Turbo-Drive Merc-O-Matic	5555	3366	P.R.N.DZ.DT.L P.R.N.Dr.Lo DH.NS.R.BR HP.CH.NS.R.BR	2.37	1.48	8888		22.28	75 75	77 66 66	m m m m		0000 <b>XXX</b>	2222	<b>444</b>
GENERAL MOTORS CORP. Buick Galillac Cherorick Orleanobla	8-40, 50, 60 8-70, 700 8-60, 62 75 6-1100, 1500, 1700 8-1200, 1600, 1600 8-1200, 1600, 1600 8-1200, 1600, 1600 8-1200, 1600, 1600	Dynaflow Dynaflow Hydra-Matic Powerglide Fewerglide Turboglide Howerglide	00000000		P,N.D.L.R P,R.N.D.C.L., R P,R.N.D.L. P,R.N.D.L. P,R.N.D.G.R.	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 2 4 1 2 6 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	288888			86553888 86553888	%2.000000	no Sunon	3.50 3100 4.50 3200 2.10 4.20 2.10 2.10	AKKKK PEREFE	222000422	<<<<<<
Pontiac	8-58-25, 58-27, 58-28	Hydra-Matic	FCG	Le.	P N.DRI, DR2, Lo. R	3.97	2.58	. 25	88		202	88	No	***************************************	WC	1813	<<
STUDEBAKER-PACKARD CORP. Packard Studebaker	8-58L Hawk 6-58C 8-58C 8-58B 8-58B 8-58H Golden Mawk	Flightomatic Flightomatic Flightomatic Flightomatic Flightomatic	000000		9.9.9.9.9.9.9.9.9.9.9.9.9.9.9.9.9.9.9.	888888	74-11	88888		8888888	20 88 8 0 20 88 8 0 20 88 8 0	888888	~~~~~	2 15 1800 2 15 1800 2 15 1500 2 15 1600 2 15 1800	¥000¥ ¥AAAA	81 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	~~~~
ABBREVIATIONS 1—Complete drive range. 2—Second garst astrong drive range. 3—Early cars only; late cars, L(3-H, 2.20-1925; L(3-8, 2.20-180). 4—Early cars only; late cars, 2.20-1775.	Early cars only; late c     A-Automate transmissi	te cars, 2.20-1830. te cars, 2.20-1890. te cars, 2.20-1851. te cars, 2.20-1851. assion fluid, type	AC Aire AW Aire BR Brak CH Crui Do or Dr or	Air cooled.  Air and wafer cooled.  Byake release.  Cruising—hill control.  Dr or DR—Drive range.		D2 - Second g DH - Drive FCG - Fluid Rear. GR Grade r High pe	Second gear startii Drive—bill contro Fluid coupling gearn. Grade retard. High performance	ng drive al. with	L.	L or Lo or LO-Low ri Lev-Levy-Levyr. N-Neutral N9-No or none. NS-Neutral-start swif P-Park.	or Lo or LO-Low range.  Pulcaver.  Neutral  S-No or none.  S-Neutral-start switch.  Park.	w range.		PB - Push button. R - Reverse. S - Super. TCG - Torque cost. WC - Water cooled.	- C 2	converter with planetary coled.	danetary





### 230. Repainting Unit

The DeVilbiss Company: New repainting equipment is available, consisting of a paint gun isolated from its supply cup by a 40-in. hose. The unit permits the gun to be maneuvered into awkward areas. The company claims the hose's pressure-feed control insures an improved finish. Eliminated is annoying drip from vent holes. The unit consists of a production-type gun, two 40-in. hoses (paint and air), and a two-quart aluminum cup.

### 231. Rear-View Mirror

Unity Mfg. Company: A new outside, rear-view mirror is offered designed for the low silhouette of today's cars. According to the company, the mirror is 60-deg adjustable and provides wider vision than normal models. Suitable for either the right or left side, the mirror has an adjustable head. This can be replaced without removing the base. The mirror is said to have chrome plating and is secured with stainless steel screws.

### 232. Abrasive Wheel

Behr-Manning Company: A flap wheel is available for polishing and finishing contoured and flat metal surfaces. The wheel, of stiffened construction, is composed of innumerable pieces of coated abrasive cloth. The company claims it is suitable for automatic polishing jack operations. Also on a standard bench grinder replacing a wire brush. The wheel is furnished with aluminum oxide or silicon carbide abrasive in a variety of grit and hole sizes. Wheel sizes are said to range from 6 x 1 to 16 x 6-in. Ten inch and smaller wheels are offered with built-in disposable metal flanges.



### 233. Mechanics' Aid

Bear Mfg. Company: A wheel step is offered enabling mechanics to reach awkward areas under the hood. Entitled "The Mechanics' Pal," the steel step attaches over the tire, fitting all sizes through the 900's. Swing arms permit placement under any fender and lock when weight is added to the step. Combined with tread-gripping teeth, the arms reportedly prevent slipping and will not harm sidewalls or rings.

(Continued on page 102)

### You Are Qualified to be a Member Of The Automotive Service League

This is a new and unusual organization open to all automotive service shops which have been qualified by Motor Age. If you haven't done so before, detach and return the postage free postcard below.

The second and lower posts and is for more new product information.]



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FOR NEW **PRODUCTS** 

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Please send me our membership plaque in the AUTOMOTIVE SERVICE LEAGUE.

(check one)

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Service Station

Specialty Shop

There are \_\_\_\_ full time mechanics at our location.

Your Company .....

Your Name..... Your Title.....

Address (Street & No.) (City) (Zone) (State)

Frank P. Tighe, EDITOR MOTOR AGE P.O. Box 102, Village Station, N. Y. 14, N. Y. 4/58

Please send me further information on the New Products, the code numbers of which I have circled below. (Be sure to circle the code number).

> 230 231 232 233 234 235 236 237 241 242 243 244 245 244 247 250 251 252 253 254 255 254 245 254 260 261 262 263 264 270 271 272 273 274 275 276

> > [Postcard valid for 90 days only.]

Your Name ......Your Title.....

Your Company .....

Your Business: Wholesaler ...... Repair Shop ..... Car Dealer .....

### **New Literature**

### 234. Valve Assortment

Dill Mfg. Company: Two new Valve-Pak assortments of tubeless tire valves are described in an illustrated catalog. The company claims the valves are suitable for all cars. The literature covers assortment No. 5258, containing 34 full length valves, 20 valve extensions, and an installing tool. Also described is an alternate assortment No. 5258Å. with 11/4-in. valves. This has 35 valves, 25 extensions, plus the tool. All Valve-Pak components are illustrated.

### 235. Tire Booklet

The Rubber Manufacturer's Assoc. Inc.: The care and service of passenger car tires is described in a new 24-page booklet. The booklet is said to explain the result of maltreatment to automobile tires.

### 236. Sealing Solutions

Rotary Seal Div., Muskegon Piston Ring Company: A new booklet is advanced explaining the principle of retaining gases, oils and other liquids under pressure. Entitled "Solving the Problem of Seals for Rotary Shafts," 12-page text carries photographs and drawings. A cellophane overlay design illustrates solutions to normal sealing problems of machine design.

### 237. Battery Service

Assoc, of American Battery Manufacturers Inc.: The company's fourth edition of the Battery Service Manual is available. The 44-page revised text covers 12-volt and dry charged batteries. Specific gravity sections have been revised in accordance with the lower gravities now used. The book contains sections on battery construction, function, testing, charging, installing and servicing. The new edition was prepared by the Technical Committee of the Association. It is reported to represent the excellent ideas and findings of among the most capable engineers in the industry.

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### Chilton's MOTOR AGE

P. O. Box 102, Village Station, New York 14, N. Y.



### 238. Oil Seal Posters

Chicago Rawhide Mfg. Company: A series of educational-type posters are offered to service shops through the company's jobbers. The posters suggest when oil seals should be replaced. They also illustrate how to install them. Another feature depicts the company's new front-wheel oil seal installation tool. The company claims this tool can be used to convince motorists of the need for new oil seals.

### 239. Parts Catalog

Aluminum Industries, Inc.: Offered is the Permite Parts merchandiser catalog of engine and chassis parts. The book is arranged in alphabetical order according to product group. Part numbers of car manufacturers are listed opposite the Permite part number. Also included is an interchange list of Permite and competitors' parts.

(Continued on page 103)

Readers Service Dept.

240. Fittings Cabinet

The Weatherhead Company: Introduced the F-3 cabinet for their brass fittings, drain and shut-off cocks. The cabinet, all steel, is 11-in. high, 6-in. deep and 16½-in. wide. Designed for wall,



bench or bin, it contains 20 plastic drawers with divider labels. The labels are said to identify the company's part numbers, plus an outline of the part. The cabinet is available to fleets, garages and service stations through the company's suppliers.

### 241. Front Seat Lock

Buick Motor Div: A seat lock is available for the company's two-door models which locks the back of the right front seat to the lower seat frame. The lock was designed for children riding alone in the rear seat. The seat is returned to normal, permitting access to the rear compartment, by a button at the end of the front seat bolster.

### 242. Tire Patches

A. Schrader's Son, Div. of Scovill Mfg. Company, Inc: Self-vulcanizing patches for tube and tubeless tire punctures up to ¼-in, diameter have been added to the company's line. The patches, "Fix Flats" Patch Units, offer a cured-on process which is described as a cold-type repair. According to the company, self-vulcanizing eliminates heat, smoke and vulcanizers. The patches are offered in six sizes.

243. Ignition Switch

P & G Mfg. Company: Named "No-Key," a push-button portable ignition switch for attachment under the hood is offered. The company claims the flexible device uses a single button control and lead wires. When servicing a car on a hoist, the engine can reportedly be operated without lowering the hoist. The tool also uncovers blown fuses and broken circuits, checks electrical



equipment, and by-passes switches. It can also be used with an ammeter for testing generators and voltage regulators. The tool is suited for farm and industrial equipment, air and marine craft, trucks and buses. It is allegedly protected against short circuits.

### 244. Windshield Wipers

Brasco Products, Inc: To restore tension to windshield wipers, a snap-on wiper arm spring is available. The company claims the product is designed merely to restore spring tension. It will not create excessive tension.



245. Armature Tool

Braintree Tool Company: A generator armature turner and undercutter tool has been introduced for car and truck generators. Entitled "Arma-Twins," it is hand operated, requiring no power outlet. The company claims it will reduce armature turning and undercutting to less than fifteen minutes.

246. Asbestos Lining

Raybestos-Manhattan, Inc: Automatic transmission lining for 1958 automobiles has been developed from thinly woven asbestos lining. The company describes the one-piece lining as "quite flexible." Named U.S. 4523, it is produced in thicknesses from .040 to .125. All thickness may reportedly be grooved. The lining is made of resin-impregnated, non-metallic asbestos. The resin binder is said to provide high friction in oil.

247. Tune-Up Reminder

American Motor Products Company: As a reminder to tune up ignition systems, the company is offering its "Visual-Pak" Tune Up kit. The kit contains matched ventilated points, heavy duty condenser and a rotor. The company claims it is designed for battery operated tractors, light capacity trucks, and passenger cars. (Continued on page 104)

248. 2-Cell Flashlight

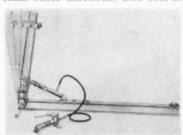
National Carbon Company: Advances its latest flashlight, the Eveready Beacon Lite, described as the largest 2-cell model in its line. The flashlight features battery end-loading and a large,



positive-action switch. Encased in seamless, heavy gauge metal, both ends are of polyethylene to combat shock damage. It has an approved Safety Glow head, also a switch surface that prevents rolling.

249. Autobody Repair

Blackhawk Mfg. Company: Designed to pull damaged sheet metal from the point of impact, a hydraulic "Pull-dozer" is offered. The company claims the Pull-Dozer will accomplish the straightening task in less time than other methods. The tool is



powered with the company's 10ton Porto-Power ram. Two large casters provide portability. A 6-foot hose separates the hydraulic ram from the pump, insuring safe remote controlled work. A panel puller, pull plate, bumper chain hook, two hooked chains and two C-clamps are included.

250. Adjustable Wrench Proto Tool Company: "Clik-Stop," described as an automatic adjustable wrench, is offered. The company claims it has no buttons or levers. A turn of the knurl, it is said, holds jaw open-



ings firm. Adjustment is said to be non-slip. The wrench is without a corner lip on its movable jaw, allowing a square nut to fit flat to the inside jaw. The chrome-plated wrench is in 4, 6, 8, 10 and 12-in. sizes.

251. Heavy Duty Fluid Raybestos Div, Raybestos-Manhattan Inc: Formula 48, a new heavy duty brake fluid, has been released. The company claims the brake fluid meets all state requirements, including the SAE 70RI specification. Formula 48, it is reported, will not boil or evaporate after repeated high-speed stops; it will not freeze or cause rubber cup or hose failing. It will lubricate brake cylinder parts. The fluid is offered in a variety of quantities.

252. Lubricating Unit

Lincoln Engineering Company: A new line of lubricating equipment has been distributed to dealers in a service-display unit. Entitled "Golden Standard Lubreels," the unit consists of four



pieces of lubricating equipment which are attached to reels set in the base of the unit. According to the company, the reels are self-retracting and provide a speed and pressure control.

253. Two Kits Available

Carlson Mfg. Company: An idler arm kit and a front suspension ball joint kit have been released for nearly all of today's cars. The company reports the arm kit removes play. It is also said to improve steering response. Road shock is absorbed by a grease-resistant rubber bushing. The ball joint kit is reported to need no adjustment after installation. Dirt and moisture are kept out, grease is sealed in. It is said to remove any looseness from ball joints.

(Continued on page 118)

It's just good business to



DON'T WAIT! For full anti-freeze profits next fall, get set <u>now</u> to offer

# GUARANTEED PROTECTION

WITH DU PONT ZEREX® ANTI-FREEZE

See your supplier for details! Reserve your ZEREX anti-freeze now!





MR-8, the special rust inhibitor in ZEREX, keeps radiators chemically-safe from rust and corrosion!

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

### Circle of Safety

Continued from page 41

ONE out of every FIVE of the more than  $2\frac{1}{2}$  million vehicles safety-checked last year needed immediate attention to one or more of the 10 major items affecting safe driving condition. Items checked are: brakes, front and rear lights, steering, tires, exhaust system, glass, windshield wipers, rear view mirror

and horn.

Safe Driving as well as safe vehicle condition is emphasized in the 1958 Safety-Check through the use of a new "Circle of Safety" theme. Motorists are urged to "Complete the Circle of Safety — Check Your Car — Check Your Driving — Check Accidents."

One of the new promotional materials carrying this theme is of particular interest. When each vehicle is safety-checked the owner is given a wallet-size "Family Car Facts Membership Card." The card when signed by the owner makes him a member of the "Circle of Safety" and it gives him a convenient reminder of important "Family Car Facts." There is space for listing the name and phone number of the garage, service station, or dealer to call for regular car service and periodic Safety-Check.

The "Family Car Facts" card also has spaces for listing the car's make, model, year, engine, key serial, and license numbers, insurance information, as well as tire size and pressures. The card also has space for recording the gas and oil to be used and the number of miles between lubrications and Safety-Checks.

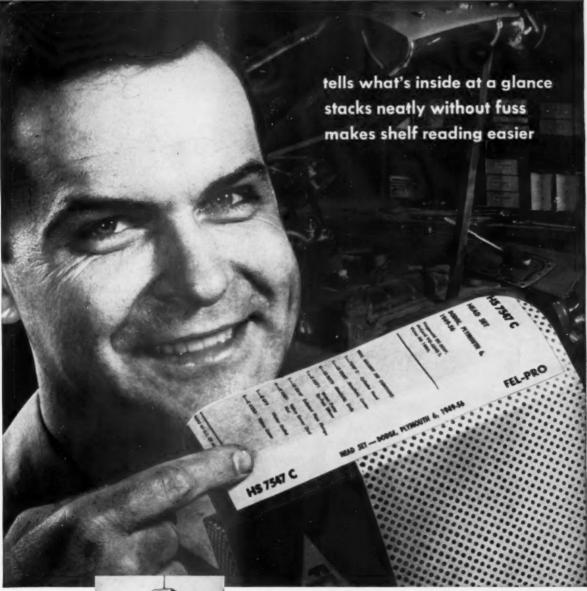
As a service to customers, cooperating businessmen can fill in their own name and phone number on the card as well as any available information about the customer's car. These cards can be distributed when safetychecking the cars of all new, used or service customers.

The impact of the Safety-Check on automotive business is illustrated by the following comment by the chairman of an outstanding community-wide Safety-Check conducted last May in Bismarck, North Dakota: "It was interesting to find out that approximately 20 per cent of the vehicles checked had one or more items in need of service. Further discussions brought out that many service stations ran out of parts, such as light bulbs, brake switches, windshield wipers, and so forth; and a few had a big run on mufflers by the end of the second day."

During 1957 approximately 1300 cities and counties organized cooperative community Safety-Checks like the one conducted in Bismarck. In these (Continued on page 108)



## New FEL-PRO Gasket Package keeps no secrets!



at your Jobber's, look for this DIAMOND of QUALITY "This is the way gaskets should be packaged," you'll say the moment you get hold of a Fel-Pro carton. Look at the label. It doesn't take a Philadelphia lawyer to figure out what's inside. Feel the construction. It has a sturdy, squared-off feel that makes for trouble-free stacking and easier shelf reading. It protects Fel-Pro Gaskets against the evils of shelf life...assures you of factory-fresh stock, always. Sensible packaging is another reason more and more mechanics see their Fel-Pro Jobber to make gasketing jobs easier!

Felt Products Mfg. Co., 7464 N. McCormick Blvd., P.O. Box 8609, Chicago 80, Illinois.

### Circle of Safety . . . . . . . Continued from page 106

programs citizens, civic groups, public officials and businessmen work together to help "Back the Attack on Traffic Accidents." In areas where no community Safety-Check has been planned, dealers of the automotive, tire and netroleum industries offered the same 10-point Safety-Check at their places of business.

The annual Safety-Check is sponsored by the Inter-Industry Highway Safety Committee and LOOK Magazine with the cooperation of the Association of State and Provincial Safety Coordinators

The Inter-Industry Committee serves as National Headquarters and provides "how-todo-it" planning materials to all participating communities. Special banners, window and outdoor posters, hand-out leaflets and other promotional aids are available to dealers and communities through National Head-

This year automobile and tire companies have loaned the Inter-Industry Committee the services of 20 men during March, April and May. They are contacting businessmen, public officials and local committees to help them Safety-Check activities. Automobile and tire companies and other cooperating groups will also help the effort.

The following are things you can do to take an active part in the 1958 Safety-Check:

- 1. Find out if a community Safety-Check is being planned in your area. If not, contact public officials, key civic leaders and others to offer your help in getting one underway. Serve on community committees.
- 2. Identify your place of business with the Safety-Check by displaying the "Circle of Safety" materials.
- 3. Help your city or county obtain materials needed for use at check lanes.
- 4. Loan mechanics or other personnel to help check vehicles at community check lanes.
- 5. Tie-in vour regular advertising with the Safety-Check program.
- 6. Offer merchandise or service as prizes for community contests or drawings.
- 7. Offer Safety-Checks at your place of business.

Put your business into the "Circle of Safety." Urge motorists to "Complete the Circle of Safety-Check Your Car-Check Your Driving-Check Accidents." Safety-Checks Service! For additional information on this traffic safety action program write: Inter-Industry Highway Safety Committee, 1200 Eighteenth St., N.W., Washington 6, D. C.

### NEW!

-from the makers of MILEAGE MINDER

PASER (SFA) FUEL LINE FITTING **ASSORTMENT** 

FUEL LINE FITTINGS Saves 60% cost -up to 85% time and temper SPECIALLY DESIGNED, LARGE-

IN CONVENIENT PLASTIC TACKLE BOX . . . ALL NEEDED SIZES

We manufacture Mileage Minder accepted and proven fuel pressure stabilizer and purifier. In the hot new motors, it just doesn't make sense to reduce or restrict car manufac-turers' recommended fuel pressures. Because, when you do, you may cause fuel starvation or loss of performance.

That's why we developed this special nonrestricting, extra-large-bore line of fuel fit-tings, for the installation of filter and fuel line accessories which are becoming increas-

ingly necessary.

These fittings are EXTRA LARGE BORE . . . and thus are non-restrictive, with a minimum loss of fuel flow.

Assortments of 50 fittings include 16 different numbers, selected according to proven popularity. All are packed in a compact partitioned plastic box, handy for shelf display and equally handy for constant use. Accurate, up-to-date individual car applications are included. Large bore refills are available

BORE. NON-RESTRICTIVE FITTINGS

This will be a welcome necessity for every counter or mechanic's bench. Saves time, temper, bother, money and headaches!

FITTINGS LIST VALUE PLUS TACKLE BOX TOTAL VALUE \$27.55 1.50 \$29.03

SPECIAL INTRODUCTORY DEALER COST



PASER MANUFACTURING COMPANY 533 Turk Street, Sen Francisco 2, California



GEO. BYERS SONS' five-story, 165,000 sq. ft. building at 46 E. Town Street is headquarters of Columbus' largest-volume automotive retail operation. Its polished marble facade with distinctive molded brass lettering is a downtown Columbus landmark.

# De Soto dealer George Byers tells why "We've out-registered every other dealer in Columbus for over twenty years"

"Aggressive merchandising, a saleable product backed by a forward-looking, human factory organization—plus plenty of hard work—pretty well sums the reasons for our success with De Soto," says George Byers, Sr., Chairman of the Board, Geo. Byers Sons, Inc.

"Teamwork's essential, too. When we took our De Soto franchise back in 1929, everyone in the organization recognized our opportunity, and we've all been making the most of it ever since. Never a RED year!"

# it pays to be a **DE SOTO** dealer!



"As my brother Frank, our President, often says, 'In addition to a good product, De Soto's understanding and willingness to cooperate has greatly contributed to the over-all profit of our organization.'



"Good service and customer relations have always been paramount to us. We maintain the largest service department in Columbus, equipped to handle as many as 117 vehicles at a single time.



"This is one of our four centrally-located Columbus used-car locations. We have 8 acres devoted to used cars alone, because we believe used-car sales are as important as new-car sales in our operation.



"Continuous advertising and promotion is essential. We use everything—direct mail, newspapers, TV, even radio broadcasts from our showroom—to tie in with De Soto's frequent retail promotions."

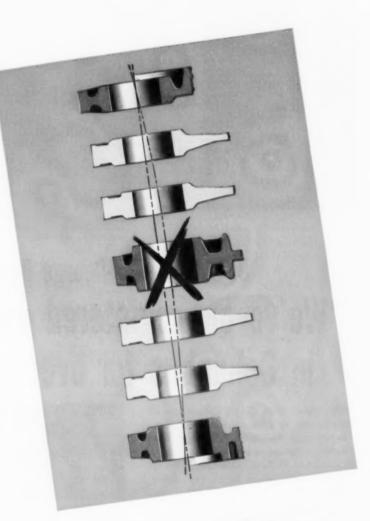
# Give your customers ANSWERS

### Tell the whole story...

Let's face it. "Engine trouble" also means "bearing trouble"—almost always. Worn bearings cause other parts to function improperly and fail prematurely. Check the new Monmouth Bearing Service Chart . . . it will pinpoint trouble—confirm your own analysis—educate your customer—and help you sell the benefits of your complete engine service.

### Sell the complete job...

The Monmouth Bearing Chart tells the story and sells the job. It backs up your own good judgment . . . builds confidence in your customer . . . explains and illustrates the causes of bearing failure—the effects—and the recommended remedies.



### MONTOUTH ENGINE BEARINGS

**CLEVITE SERVICE** 

Cleveland Graphite Bronze Division of Clevite Corporation Cleveland 3, Ohio



# ...NOT ARGUMENTS!

### Fix it once and fix it right...

"Re-ring jobs" and "valve grind jobs" are only a part of what's really needed. Bearing replacement is an essential part of the cure. The "MBS" CHART is accurate—authentic—convincing and conclusive. Use it to lay out the job as it should

be done. And Monmouth Bearing quality will enable you to guarantee your workmanship and customer satisfaction. Get in touch with your N.A.P.A. jobber. He has a chart for you...at no obligation on your part.



# SUNOCO CUSTOM -

# Builds Customer

Fuels to fit every car—from one automatic pump

EXCLUSIVE with Sunoco dealers



@ 1958 SUN OIL COMPANY

# -BLENDING

# Satisfaction for You!

Your customers soon will be able to get motor fuels fitted to the exact octane needs of their individual cars, including the highest compression models you sell.

Within a few months Sunoco dealers will be selling six grades of gasoline automatically blended by one pump. Sunoco's new exclusive pump blends the fuel to fit the car.

These fuels range from the highest octane anywhere at regular gas price (Blend 200), all the way up to the highest octane available anywhere at any price (Blend 260).

This revolutionary new system of tailored fuels is your answer to certain complaints of

engine knocks and the high cost of gasoline for the newest high-compression engines.

Once those customers visit a Sunoco dealer and have their cars "fitted" for the exact octane they need, they'll get full knock-free performance, and maximum economy obtainable in no other way.

It's the ideal solution to every car dealer's problem of helping his customer obtain the right fuel at the right price for the car he buys.



# SERVICE

### New Power Steering Valve And Spring For Plymouth

A new back pressure control valve piston and spring, have incorporated in the pressure control valve bodies of all constant control power steering gears built after August 31, 1957. The new valve and spring are designed to reduce back pressure valve noise to a minimum.

If it is necessary to install these parts, use care to seat the back pressure valve spring properly in the control valve body.

### Leaking Manifold Gasket On Dodge Wastes Oil

It has been noted that under certain conditions of engine operation high oil consumption is caused by leakage of the intake manifold gasket. It is suggested that before more drastic steps be taken on an oil consumption complaint the following procedure be tried.

Replace intake manifold gasket using Perfect Seal Paste on all sealing surfaces. Use two intake manifold gasket end reinforcements at each end and hold down with ½-20 hex head bolts torqued to 8 ft. lbs. Torque intake manifold bolts to 40 ft. lbs.

### Caution Advised When Balancing Rear Wheels

The balancing of either rear tire and wheel assembly by a procedure which requires one of the rear wheels to be raised and spun is hazardous and is a practice which must be avoided in the interest of safety on cars equipped with non-slip differentials. Obviously any abnormal friction in the spinning assembly, brake drag for example, would cause a torque transfer to the stationary wheel resulting in movement of the vehicle. Owner and service manuals warn of the dangers of this practice on all cars equipped with twin traction differentials. Cars so equipped carry an identification decal on the instrument panel.

### High Compression Engines' Fuel Requirements

The high compression engines used in 1958 Mercury, Lincoln and Continental Mark III vehicles were designed for use with high octane premium gasolines only. Therefore, to prevent damage and to obtain top efficiency and performance, dependable brands of high octane premium gasolines must be used.

Vehicle owners who intend to make extensive trips in areas where high octane premium fuels are unavailable, such as Mexico, etc., should be notified that a low octane fuel adapter kit, has been released to provide a means of lowering the compression ratio of the 383 and 430 cubic inch displacement engines.

### Servicing "Cool Air" Air Conditioning System

Listed below are important service adjustments for the model A "Cool Air" air conditioning system distributed through the Chrysler Parts Division.

**Evaporator Coil Freezes:** 

The by-pass valve must be properly adjusted to prevent freezing of the coil. If freezing is encountered, loosen locknut, and turn the adjusting screw

clockwise two complete turns. Further adjustment of one complete turn clockwise may be necessary if the coil continues to freeze. However, if a lower temperature is desired and the bypass valve is properly adjusted, turn the adjusting screw one complete turn counterclockwise.

Water Drip on Floor:

Condensation within the evaporator during humid weather may drip on floor carpets if the evaporator is not properly installed. The top of the evaporator must slope toward the firewall to allow water to pass through the drain tube. Be sure drain tubes are free of obstructions and point toward the rear of the car.

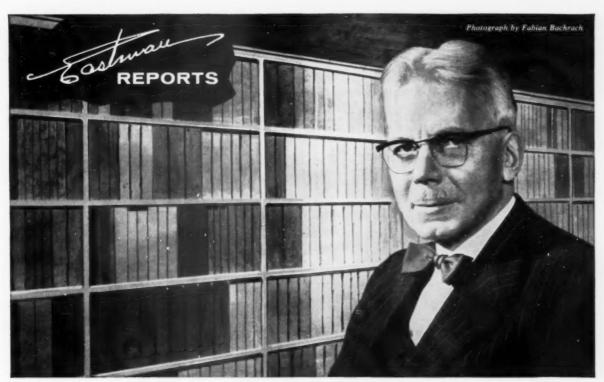
Hissing Noise:

This condition may occur under certain operating conditions. It is due to the normal operation of the by-pass valve and does not indicate a defect in the system.

### Starting Motor Noise On Lincolns & Mercurys

In the event that noisy operation or noisy engagement of the starting motor is noted on some early production cars, check the clearance between the top mounting lug on the starting motor and the cylinder block. If clearance does not exist in this area, the starting motor will be "cocked" slightly when tightened down, causing improper gear tooth contact and noise.

When this interference condition exists, clearance can be provided by removing the starting motor and grinding the required amount of the top mounting lug of the starter. Do not weaken the mounting lug by excessive grinding.



Eastman's confidential Editorial Research Reports to publishers prove that readers find advertising in Business Publications as interesting as editorial material. The full Eastman release on this subject is available to you on request.

# "70% of Advertisement Reading in Business Publications is intentional—not accidental"

says ROY EASTMAN of the Eastman Research Organization

"Why shouldn't it be," Mr. Eastman continues, "since Business Publications advertise the very things by which readers make their livings?"

"A year and a half ago, we injected into all of our confidential readership surveys a penetrating inquiry as to *how* the advertising was read.



"The overall results of a year's inquiry on this subject (32 surveys for 18 publications) show that the average exposure to advertising is 70% intentional, only 30% accidental.

"Moreover, 94% of the readers of these publications, on the average, reported that they gave conscious attention to the advertising."

Advertisements in Business Publications reach an audience that's interested in your message . . . an audience that wants to read what you have to say.

### NATIONAL BUSINESS PUBLICATIONS, INC. 1413 K Street, N. W., Washington 5, D. C. • STerling 3-7535

The national association of publishers of 173 technical, professional, scientific, industrial, merchandising and marketing magazines, having a combined circulation of 4,098,937... audited by either the Audit Bureau of Circulations or Business Publications Audit of Circulation, Inc... serving and promoting the Business Press of America... bringing thousands of pages of specialized know-how and advertising to the men who make

decisions in the businesses, industries, sciences and professions...pin-pointing the market of your choice.

Write for a list of the NPB publications and the "Here's How" booklet, "How Well Will We Have to Sell Tomorrow?", written by Ralston B. Reid, Advertising & Sales Promotion Manager of the Apparatus Sales Division, General Electric Company.



# Pull in Muffler Jobs with Boost Muffler Profits to



Profit-proved glant A-Beard sign. Curbside dynamite from coast to coast. You get it for one-third the price you would normally pay for a smaller sign, painted locally. And it's made of rugged sheet metal painted on both sides in high-baked enamel for permanent luster.



LONGER-LASTING MUFFLERS-DESIGNED FOR TODAY'S

# AP Giant Metal A-Board, \$54 Weekly—\$2715 Yearly

Here's what successful AP dealers say about this big sales-getter:



Anthony lannelle, Suncco Station, Phila, "Before I got my A-Board sign, I only did 5 to 10 muffler jobs a month. Since then my volume has grown to from 25 to 35 jobs. I now stock 70 mufflers and 35 tailpipes regularly. My muffler business is great, believe me, and I give the credit to AP."



Frank Strasser, Frank's Sinctair Service, South Bend, Ind. "AP has the best nationwide coverage in the business. I know, because I saw A-Boards in every town I visited on my vacation. When I put up my A-Board, my muffler business tripled immediately. These extra muffler profits mean a lot to me."



Elmer Rehioff, Phillips 66 Station, Brade 10 muffler and pipe jobs a month. After putting up the A-Board, I sold 29 mufflers and 39 pipes the first month, 31 mufflers and 42 pipes the following month. Gallonage is up 30%—other business up 35%. The A-Board is the answer—best display I ever used.



Phil Hahn, Standard Oil Co. Station, Chillicothe, Me. "When I signed up with AP, I couldn't see buying an A-Board sign; so the wholesaler let me have one on trial. After one week I was thoroughly convinced of its value. My customers used to ask me if I installed mufflers and pipes. Now they know I do and just ask me when I can get to their job."



Charles Cooper, Cooper Shell Service, Toledo, Ohio "My station has competition on other three corners; business is 50% transient. A year ago I averaged less than \$300 a month in total accessory sales. Now, thanks mainly to the A-Board and the AP Muffler Specialist program, accessory sales have increased to \$900 a month.



J. E. Hardaway, Hardaway's Terace Station, Bessier City, La. "I concentrated on tires and general service for 1½ yr. No real sales gains, parity because of poor location. Did only one muffler job a week. With AP sales aids, including A.-Board, I do at least 2 jobs a day and often 4 or 5, Gallonage is up 10%, tires and accessories even more."

### THE AP PARTS CORPORATION

3Q AP Building, Toledo 1, Ohio

Exhaust systems for better motoring

HIGH COMPRESSION ENGINES

Multiply your muffler profits like the typical successful dealers above! Think what 700% increased muffler sales would do for your station traffic-and profits. Then start getting it with one of these giant signs. Even used alone, it's curbside dynamite. Used with the proved AP Muffler Specialist program and backed by national AP advertising and the "Tap, Look and Listen" plan, it can easily bring you more than the average \$2715 extra muffler profits yearly. Don't put it off. See your AP wholesaler right now!

### Chrysler Supports Driver Training

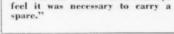
Chrysler Corporation has broadened the scope of allowances to dealers on cars placed in high school driver training courses.

In the past an allowance of \$125 has been credited on any car loaned by a dealer for use in a driver training program sponsored by an accredited school. An identical amount will now be credited also to dealers for cars sold or leased to accredited schools for this purpose.

Details of the broadened program for Chrysler Corp. dealers were announced by Byron J. Nichols. He is general manager of Chrysler Corp.'s group marketing organization.

"Because of the steady population increase and the evergrowing number of vehicles in use on our highways," Nichols said, "more and more schools are expanding their driver training courses. It is estimated that within the next ten years 30,000,000 youngsters will reach driving age.





### New Products . . . . .

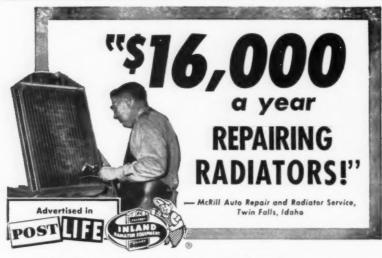
Continued from page 104

### 254. LubriPoint Line

Standard Motor Products, Inc: A new line of pre-assembled Blue Streak LubriPoint sets are available. The sets have felt Lubri-Wik for controlled cam lubrication. This, it is claimed, allows a small amount of lubrication to be added when installing. The



LubriPoints permit continuous lubrication of the distributor cam's high points. The company claims they will prevent grease from gathering on the flats of the cam. Another claim is longer point life by lowering block wear.



McRill says: "My Inland-equipped radiator dept. gave me an additional \$12,416 in 1955—over \$16,000 in 1956! My total repair volume is up 41%, due largely to added business attracted by my radiator dept. To Inland equipment and training goes much of the credit!"

YOU CAN DO AS WELL! Many others, with modern Inland equipment, are making \$8,000, \$10,000, \$15,000 a year! Car owners are now aware it pays to have their radiators cleaned and repaired regularly.

INLAND NATIONAL ADVERTISING HELPS YOU! Inland ads in the Post and Life warn car owners of the danger of neglecting radiators ... urge regular servicing... suggest seeking the nearest shop displaying the Inland sign. Inland, world's largest radiator servicing equipment manufacturer, offers the complete package — equipment, training, merchandising, even a "Pays-For-Itself" purchase plan. Mail the coupon for free descriptive book.

FREE TRAINING Complete factory school trains you or your man quickly. Cleaning, repairing, recoring, pricing, merchandising—everything! Hundreds of graduates now expert radiator repairmen. It's FREE to Inland customers! "Qualified me to give expert service!" says Jim Pendergast, Faber, Mo. "Excellent training!" says Moser Motor Sales, Berne, Ind.

### MAIL TODAY

New free 48-page book, "Blueprint for Profits," tells about many making an EXTRA \$8,000 to \$15,000 a year servicing radiators. Complete with illustrations, descriptions and prices of required equipment. Popular "Pays-For-Itself" purchase plan, Invest a minute to mail the coupon—the rewards can be amazing! Send today!

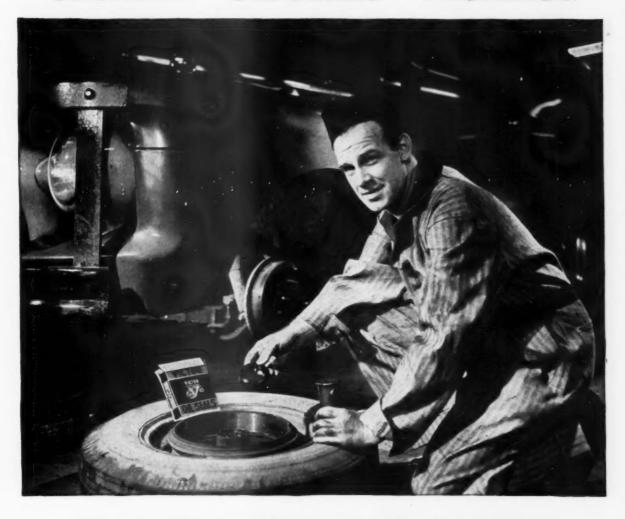
INLAND MFG. CO., 1108 Jackson St., Dept. MA-4, Omaha 2, Nebr.

"SOLD EXCLUSIVELY BY MAIL"

Please send	new free book, "Blueprint for Profits
FIRM	(PLEASE PRINT)
ADDRESS	
CITY	ZONE_STATE
sy	TITLE

### VICTOR

GASKETS . OIL SEALS . PACKINGS



### You can't take chances with oil seals... that's why we buy from the Victor Jobber

No service shop can afford to take chances with customers' safety and pedestrians' lives. Too often, neglected, leaky oil seals cause brake failure. That's why progressive service shops always replace seals on brake jobs—always check them carefully when greasing wheels.

It's equally important that you insist on Original Equipment Quality seals—seals you know are made to factory specifications or better. The place to get them with "Johnny-

on-the-spot" service is your Victor equipped with best catalog service—the famous Victor Gasket and O

On oil seals as on gaskets your Victor Jobber serves you with the 100% complete Victor line. He's

equipped with best catalog service the famous Victor Gasket and Oil Seal Guides—and with accurately marked stock he gives you exactly what you need for every job.

Victor Manufacturing & Gasket Co. P.O. Box 1333, Chicago 90, Ill. Canadian Plant: St. Thomas, Ont.

VICTOR
GASKETS . OIL SEALS . PACKINGS



The 100% Coverage Line - for Cars, Trucks, Tractors, Stationary Engines

### More proof that good men can "Grow with Texaco"

TEAMING up with Texaco last year has already paid off for the Barney Holland Oil Co., of Fort Worth, Texas, and their 50 Dealers.

The company has been in successful operation since it started in 1928. Yet, in less than six months after switching to Texaco, its through-put in 50 Dealer outlets has increased by a whopping 28 per cent!

"We are very happy to be connected with a national organization like Texaco," says Vice President Barney Holland, Jr. "Texaco products are so well known, and so good, that it makes our job of selling easier. We benefit from Texaco national advertising—Texaco is the only petroleum company selling its complete line in all 48 states.

"Our Dealers are glad that we made the change. I'm sure they would advise any man wanting to go into the service station business to get a Texaco station. And our experience indicates that it is a wise move for a Distributor to change to Texaco."

SUCCESSFUL OPERATORS: President Barney Holland and his son, Barney, Jr., head up the company. They operate three gasoline motor transports, one oil transport and two trucks for delivery of other Texaco products to their fifty outlets.



### THEY'RE GLAD THEY SWITCHED!



"Our business has picked up greatly," says Dealer Norman Brannan, Fort Worth. "The Texaco sign has brought us new trade, and our old customers are glad we changed brands."



"OUR CUSTOMERS prefer Sky Chief Su-preme over our former brand of gasoline," says Dealer Hillard Bell, Fort Worth. "Credit Card business has increased 15% since September 1."



"My BUSINESS has more than doubled since we went with Texaco," says Dealer W. L. McCoy, Fort Worth, who has been in business for 30 years. "Texaco products are well known."

Chilton's MOTOR AGE, APRIL, 1958

### Why there's a solid future with Texaco

HERE are 6 reasons why Dealers and Distributors grow at Texaco: (1) Petroleum products known and accepted by car owners in all 48 states. (2) Biggest national advertising program. (3) Dramatic point-of-sale promotion material. (4) The only petroleum credit card honored under one sign in all 48 states and Canada. (5) The right retailer policy... Texaco doesn't compete with its Dealers. (6) The best opportunity to cash in on "touring" business, because Texaco customers at home like to stop at Texaco stations when on the road. This means that each Texaco Dealer has 38,000 other Texaco Dealers helping him.

No QUESTION ABOUT IT, Texaco offers a solid future to good men. Proof: 20,096 Texaco Dealers have been with us 10 years or more, and some more than 45 years. 683 Distributors have been with us for at least 20 years ... some more than 45 years.



THE TEXAS COMPANY

IF YOU'D LIKE to grow with Texaco get in touch with the Texaco Division Office nearest you: Atlanta, Ga.; Boston 16, Mass.; Buffalo 9, N.Y.; Butte, Mont.; Chicago 4, Ill.; Dallas 2, Tex.; Denver 3, Colo.; Houston 2, Tex.; Indianapolis 1, Ind.; Los Angeles 15, Calif.; Minneapolis 3, Minn.; New Orleans 16, La.; New York 17, N.Y.; Norfolk 2, Va.; Seattle 1, Wash.



### ON THE GO with IGO

Photo of the Month: At left is scene from last month's meeting in Columbus, Ohio of officials of IGO of Ohio, Ohio Automotive Wholesalers Assn., and Booster Chapters #16 and #32. Under discussion was a plan to set up an advisory committee of OAWA and Booster members to meet with IGO of Ohio's board of directors. Seated, left to right: Tom Reynolds, OAWA treasurer; Frank Hornyak, Ohio IGO president; Cecil Barber, OAWA president. Standing: Dick Stempfle, B-32 president; Dan Geib, B-16 president; and George Millikin, IGO national dele-



### Rude Elected

Alan G. Rude, president of Universal C.I.T. Credit Corporation, has been elected a director of C.I.T. Financial Corporation, it was announced in New York.

Rude began his career with C.I.T. as a sales correspondent in 1925. Shortly he was transferred to credit and collections and, in 1929, was moved to Pittsburgh to help open a regional office.

For several years Rude helped introduce branch offices throughout the Midwest and South. He was then transferred to Cleveland as branch manager. Following a promotion to district manager, Rude was assigned to the New Jersey branches and in 1935 became assistant vice president and assistant division head.

In 1936, a central division was created by Universal C.I.T. and Rude placed in charge. In 1944, he was reassigned to the home office in New York as vice president in charge of sales. Subsequently, he was made a senior vice president, executive vice president in charge of sales administration, and then president of Universal C.I.T.

### **Used Car Selling**

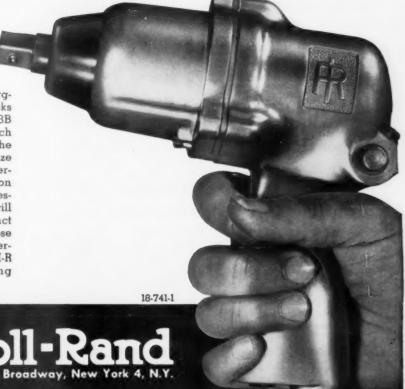
A nation-wide program covering used car reconditioning and merchandising was introduced by Chrysler Corp. recently to its some 8000 dealers.

The program is designed to help dealers boost their used car and truck sales, and is said to cover all facets of the used vehicle business. Using 54 specially equipped station wagons, assistant regional and district managers met with dealer groups in many cities. The wagons carried MoPar reconditioning materials and equipment.

# ....do any service job faster with air and electric tools

1/2" DRIVE AIR SIZE 403B

Handle all but the very largest nuts on cars and trucks with the lightweight 403B Impactool. The 403B-which weighs only 5 lbs.-is the most powerful tool of its size -a Select-Air regulator permits control for safe use on small jobs-an air compressor as small as 11/2 hp will operate this tool. Compact design lets 403B fit into close quarter jobs, reduces operator fatigue. See your I-R Jobber for a convincing demonstration.



Chilton's MOTOR AGE, APRIL, 1958

# SPORTS PAGE

(Now that big league baseball has stretched all over the map, we are reviving one of Red Smith's classics—an account of the day the Dodgers moved for the first time. Ed. Note)

### Over the River

JERSEY CITY, Apr. 19, 1956.—Ten years ago Jackie Robinson played here, and in 1948 Duke Snider was bombing these fences for Montreal. In this same Roosevelt Stadium, Walter Alston broke in as a first baseman for Rochester. On the long, rough haul through the bushes, half a dozen other Dodgers served time in this garden spot of the marshes. Then Brooklyn beckoned, and they thought they had reached the majors. That's what they thought. Today they found out.

In gray and windy cold, a few cars crept through the Holland Tunnel, negotiated the traffic of Journal Square and groped on across the flatlands past rubbish heaps and industrial plants, following the oldest established permanent floating franchise in baseball to its home-away-from-home.

Outside the gates, newsboys hawked papers whose headlines heralded the historic event: "Jersey City's Dodgers open Major League Season."

It was the start of Walter O'Malley's ignoble experiment—baseball's return, on a part-time, piecemeal basis, to the town which the International League deserted six years ago—but Jersey City wasn't exactly beside itself. Indeed, Jersey City still wasn't beside anything but the pig farms of Secaucus. The first of Brooklyn's seven home games abroad drew 12,214 desperadoes to an abandoned auto race plant that can accommodate 25,000.

### Gowanus (Pronounced "Hackensack")

A wind howling off the Hackensack River stiffened flags on the grandstand roof, pointing them rigidly toward a muddy barren



VIEWS OF SPORT By Red Smith

beyond rightfield where workmen tearing up the auto track had left a band shell uprooted. Also in the mud, fenced off from the playing field by a low temporary wall, stood the flagpole where Eddie Fisher and a Marine color guard were to soil their boots ceremoniously.

Eddie sang and an American Legion band tootled while flags went up—first the Stars and Stripes to tell the barnstormers what country they were in, and then a pennant hauled over from Brooklyn to remind the Dodgers that they were champions, even here.

Possibly the most appropriate touch, in view of the weather, was a big football score-board.

Near home plate, photographers made shot after shot of Jocko Conlan, the third-base umpire, brandishing a mask and crying, "Play ball!" It wasn't Jocko's mask, for Augie Donatelli was working behind the plate, and umpires in the majors never actually shout, "Play ball!" But, then, major league teams never play championship games where they don't belong, either.

While bands marched and both teams were booed impartially as they straggled out for the opening ceremonies—after all, both are strangers here—a new baseball was entrusted to Mayor Bernard S. Berry. When the public address system announced that the Mayor would now toss out the first ball, his honor was chatting with voters. Frantic joggling of his elbow won his attention.

(Continued on page 134)



### Creates new anti-freeze customers!

The PEAK "Expert Pre-Summer Checkup" educates car owners to drain anti-freeze each spring for trouble-free summer driving. Paves the way to sell mere of your customers a fresh filling of PEAK Anti-freeze every season.



### 2. Beats local price competition!

The PEAK "Expert Pre-Winter Checkup" promotion convinces car owners that anti-freeze without service is never a bargain. Discourages car owners from buying anti-freeze elsewhere and trying to install it themselves—or expecting you to install it free. Enables you to set a fair price and profit on services.



### **EXPERT SERVICE PROGRAM for '58**

... a double-barreled Spring and Fall promotion that brings you these 4 big sales benefits!



### 3. Boosts total profit potential!

These promotions build profits from cooling system labor and service by telling car owners why they need your expert service. "Expert Checkups" lead to plus sales of tires, batteries, filters, fan belts, thermostats, pressure caps, windshield wiper blades, chemicals, etc.



### 4. Keeps your customers coming back!

Once you've sold customers on your expert service with this PEAK Expert Service Program you'll have them driving into your station all year 'round, it all adds up to a steady, profitable operation that puts more money in your pocket.

### start your profits rolling in with this PEAK "SPRING SALES KIT"



"EXPERT PRE-SUMMER CHECK-UP" SIGN helps sell your special car-care package.

### Brain TIRED Anti-Freeze

WINDOW STREAMER draws car owners' attention to the problem of "tired" anti-freeze.



WINDOW POSTER tells why it is important to drain "tired" anti-freeze.



REMINDER POST-CARD urges car owners to see you for your "Expert Pre-Summer Checkup" package. Many PEAK dealers

cashed-in on the

"Expert Program"

last Fall-

MAKE '58

YOUR YEAR!



Get your kit from your PEAK® and NOR'WAY® Anti-freeze jobber - or contact



COMMERCIAL SOLVENTS CORPORATION
260 Madison Ave., New York 16, N. Y.

"I'm from Missouri," said the mechanic...

# "Show me how this new Champion wrench



 The mechanic was mad. He had just burned his knuckles while freeing a plug. "I'd sure like a wrench that could save my hands. Let's see what yours can do."

That challenge came when the mechanic heard about the new "Plug-Master" wrench...an exclusive development of the Champion Spark Plug Company. And the Champion representative showed him. Like this.

 <sup>&</sup>quot;Right," said the Champion man. "Watch how this flex-handle bends back to let me keep my hands up above a hot manifold. The 'Plug-Master' is a real knuckle-saver."



Chilton's MOTOR AGE, APRIL, 1958

# makes spark plug jobs easier and faster!"



3. "Not bad," said the mechanic. "What about a plug buried behind a generator?" "Just like this," was the answer. "The handle bends back and you've got no problem."



4. "See how it clears this valve cover, so you can work up in the open without banging your knuckles." "That's great," said the mechanic, "But what about power equipment?"



5. "OK, look here. See how, with an extension, you can get in behind this power-brake master cylinder. There isn't a single plug job that this wrench doesn't make easier and faster."



6. "You've sold me," said the mechanic. "I'd like to have a couple of those 'Plug-Master' wrenches. How do I get them?" For the answer to that, see box below.

• The "Plug-Master" ratchet wrench is available from your wholesaler in any one of four assortments of 50 fast-moving Champion plug types. (One for the over-all car market, others specifically selected for Ford Motor Company, General Motors, or Chrysler Corporation cars.) Packaging in these assortments enables you to obtain this new wrench at the low price of \$4.25.\*

•••••••••••

The "Plug-Master" has a hinge joint that permits 30° handle travel forward or backward. Full 12-tooth ratchet engagement. Only 6° handle travel required for next bite. Popular %" square drive fits most spark plug sockets and extensions. Ratchet shift reverses easily—has positive-locking action.

\*Suggested dealer price for wrench only. Assortment of 50 Champion plugs at regular dealer price. (Minimum dealer price established by Fair Trade Agreements in Fair Trade States.)



Dependable 5-rib

CHAMPION

SPARK PLUGS





### "How Motor Age Came to My Rescue"

\$25 Bond for Better Letter

In 1958 we are going to have an occasional contest for our readers. The subject: "How Motor Age Came to My Rescue." The prize—a \$25.00 U. S. Saving Bond for the best letter on how Motor Age serves you best.

There are no entry fees... nothing to buy... no strings attached. All that you need do is to write a letter on your business stationery on the subject. Sign your name and title.

The contest is open to all subscribers of Motor Age, excepting employees of the Chilton Company, publishers of this magazine.

Writing style, grammar, are not essential factors in winning the contest. It's your ideas, your testimony that counts. Motor Age editors will be judges in this contest and their decision will be final.

For example, a fellow up in Alaska had an engine problem. He wrote tech editor Jack Montgomery for advice. He said he was frozen in and wouldn't do a lick of work on the job until Motor Age came to his rescue.

Motor Age thawed the problem before springtime.

### Glad To Help!

Dear Editor:-

I would like to take this opportunity to tell you how much I enjoy your Motor Age magazine. I always look forward to the new issue.

At the present time I am trying to get some information on the new automatic car washing machines. I wonder if you could supply me with a list of the manufacturing companies. And, if you have any information on the operation of this type business?

Hoping to hear from you soon.

George T. Forrester

Forrester's Service Center

Gainesville, Georgia

Editor's Note: The Chilton Automotive Buyer's Guide lists the manufacturers of various car washers. It might be well to check with your nearest equipment wholesaler for guidance when making your selection.

### Anybody Else Agree?

Dear Editor:

I have just read Franklin Pierce's letter in the January issue on page 27 and 28 regarding the free bill-board advertising that is being put on cars and trucks these days and I must go along with him that no one would think of wearing a suit with the tailor's name on the sleeve or similar advertising, yet, an automobile that doesn't carry its load of advertising looks almost "foreign."

Let's have a fixed charge for

all this advertising to be paid by the dealer and manufacturing concerns that benefit from it or just leave the "junk" off and have good looking cars again.

(Signed) Enoch C. Seale Seale's Service Prescott, Arizona

### Visible Paint Needed

Dear Editor:

"What this Country needs..." is a highway paint that will be visible on a rainy night.

Franklin Pierce San Rafael, Calif.

### Can Use a Good Book

Dear Editor:

I am thinking of starting a car dealership and I should appreciate it if you would send me any information or the name of any books on the subject. Thank you.

> Roger A. Carmody Athens, Ohio

### Where to Get Book

Dear Editor:

Reference is made to Mr. Frank P. Tighe's Memo in the February issue of the "Motor Age" concerning a new book which had reached his desk.

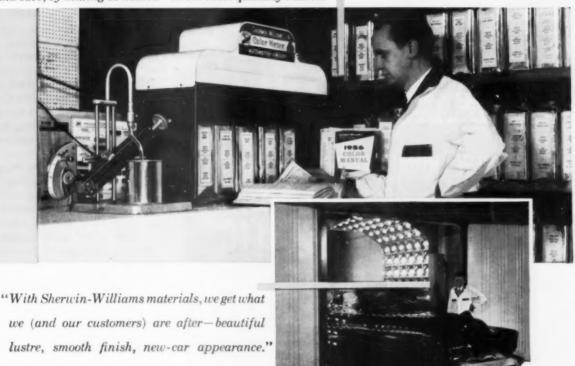
The book was written by a Buick dealer, Mr. Martin H. Bury, of Philadelphia, entitled, "The Automobile Dealer." We will appreciate information as to where we might secure a copy of this book and the price.

G. Pelzer Pelzer Motor Co., Tucumcari, New Mexico

Editor's Note: There is a new book recently published, entitled —"The Automobile Dealer." It is written by Martin H. Bury, a successful Buick dealer in Philadelphia. It is published by the Phillpenn Publishing Company, 1750 No. Broad St., Phila. 21, Pa. We understand the price of the book is \$5.

(Continued on page 130)

"Mixing your own colors with Sherwin-Williams Mixing Equipment, as we do, is a real way to keep inventory down and save, by mixing as needed—in the exact quantity needed."



### lustre, smooth finish, new-car appearance."

### "We can't gamble...

### we use Sherwin-Williams materials!"

So says Dave Brown, of Dave Brown Auto Painting, Chicago. "With an average of 20 refinish jobs per day, we can't afford to gamble on expensive comebacks. We use Sherwin-Williams materials almost exclusively. Sherwin-Williams Kem® Transport Enamel, reduced with Super Flo No. 49, is all we need. We like the way it handles and its good, through-dry. Dangerous, expensive 'driers' and additives are out the window, with a nice savings in time and money.

"We guarantee our work-and first class

work plus top-quality paint materials adds up to satisfied customers!"

Dave Brown is one of many of today's leading, large-scale, paint-shop users of Sherwin-Williams "OK" Automotive Finishes. His reasons make clear why "OK" materials offer a way for any shop to cut down risky experimenting and assure consistent, top-quality results. Investigate-call your OK Automotive Jobber today! The Sherwin-Williams Co., Automotive Division, Cleveland 1, O., and Montreal, Canada (Export Sales, Newark 1, N. J.).



### Readers Always Write . . Continued from Page 128

Repair Job Leads to Poem
Dear Editor:

After having my car repaired today, I penned this. Possibly you will accept it for publication.

Mrs. Therelene Snoddy Ontario, Calif.

"THE MECHANIC"
The mechanic in his day of toil

—fixing the rods and radiators that boil—

Sees his time revealed—in many ways.

Maybe it was the car that meant your job

The doctor's who delivered your child.

Groceries at your door—and new horizons to explore.

Did it mean a Happy Holiday—

After he fixed the knock and the door so it would lock?

Yes, the mechanic is a very handy friend—

And to him, our "Thanks" we send.

### Who Knows About Jitneys? Dear Editor:

After circulating the enclosed letter throughout Southern California, with no results on the exact origin of the first jitney bus, I am going to try a national publication.

Because Chilton publishes several automotive journals it is my hope that you can find room to reprint the enclosed in the hope that your very special readers may come up with the answers.

Should there be any response, please send me copies of the answers for my study.

Chet L. Swital Los Angeles 34, Calif.

### Jitney Buses

July, 1914, marked the time that a stretched-out touring car pulled up to a curb in Los Angeles, the driver leaned out toward the people awaiting a street car there and offered to drive them to their destination for a jitney (a nickel). That moment marked the beginning of the giant bus industry as we know it today.

The idea first swept the general Los Angeles area and within days stretched-out touring cars of many makes were hauling passengers to their city destinations for a jitney all over the U.S.A. That's how they happened to be named "jitney buses," and that's how the bus industry was born.

However, in searching through the files at the various libraries, the museum, the C. of C. and the Southern California Historical Society, etc., the name of the man who started the idea and put it into action or the full details of the exact time and place



### FOR INSTANT STARTS...AND CONSTANT, POSITIVE FUEL FLOW BOTH WINTER AND SUMMER!

Highest delivery rate! Up to 60 gallons per hour, with oversize piston, coil and power spring.

Adjustable pressure! Pump can be easily adjusted from 1 PSI up to 7½ PSI to give exact shut-off pressure required by any carburetor.

Built-in automatic pressure regulator! Prevents flooding and starving. Maintains desired pressure at carburetor . . . gives smooth, steady fuel supply . . . eliminates surging. Built-in fuel filter! Extra-large reser-

Easy wiring and installation! Battery can be either positive or negative ground.

Serviceable in field! Routine maintenance—even complete overhaul—can be done by your own service personnel.

Minimum inventory! Just two models -6-volt and 12-volt.

Order from your jobber today!



STEWART-WARNER

1840 Diversey Parkway Chicago 14, Illinois have not thus far been discovered by this writer [Mr. Swital].

### Received Motor Age Trophy Dear Editor:

May I take this opportunity to express my appreciation and that of my car owner, Lew Welch and mechanic, Gene Marcenac, for the wonderful watches and the Motor Age trophy. I have been around the automotive field all my life and have been an ardent reader of Motor Age most of that time and feel a great honor at having won the Motor Age award.

I think it was wonderful of Motor Age to put this trophy up on an annual basis, it certainly will give the boys something to shoot at every year, and only hope that I can do it again.

Paul Russo St. Louis, Mo.

### Thanks for Your Help Dear Editor:

We are pleased to enclose a "Certificate of Appreciation" for

your publication as a small token



### MOTOR AGE



of our appreciation for your support of the 1957 Safety-Check.

M. R. Darlington, Jr. Director Inter-Industry Highway Safety Committee

Editor's note: We are extremely grateful to Mr. Darlington and Inter-Industry for the award. We support the Safety Check program because of its great value to public and automotive serviceman alike. News on this year's coming Safety-Check activity may be found on page 44.

LOSING OUT ON THOSE HEAVIER BODY REPAIR and FRAME STRAIGHTENING JOBS!

HYDRO-EQUIPMENT

Get your share of the highly profitable frame straightening and heavy body repair work. With PF Hydro-Repair Equipment, your shop can handle even the toughest jobs efficiently. One or both of the two sets shown here will meet your exact requirements . . . provide the extra power, speed and versatility that pay off in "big shop" profits. Get the complete story. Mail coupon for Free Illustrated Catalog and choose your set. Order through your local jobber.



### Hydro-Chief PF-43

This versatile 36-piece set pays for itself on the first few jobs! Remote control jack provides 7½ tons of hydraulic power to handle all heavy metal or light truck and passenger car frame straightening. SPEEDLOK TUBING and ATTACHMENTS reduce hook-up and take-down time . . provide superior pushpull strength. Exclusive adjustable spoon eliminates need to change spoons whenever contour of damage changes. Nice way to boost profits in the "growing" body shop.



### Hydro-Giant PF-61

Big body shops everywhere depend on this rugged 28-piece set for more profitable handling of their heaviest body work and major frame reconditioning. Remote control 12½-ton jack provides 25,000 pounds of hydraulic power for pushing—15,000 pounds for direct pulling. Sturdy tube extensions with ¾" walls, and drop-forged attachments assure plenty of strength under pressure. Today's best solution to all heavy body and frame straightening problems.

Buy Through Your Jobber



Mail Coupon for FREE, Illustrated 28-page Catalog

H. K. Porter, Inc. Dept. MA-4 74 Foley Street, Somerville 43, Mass.

Please send my copy of "Do it Faster and Better".

NAME

COMPANY ...

ADDRESS .....

CITY .

STATE ...

### Managing Your Money ... Continued from page 46

located on flat roofs, they cannot be observed by policemen or others at street level. Any noise made in breaking a skylight is reflected upward by the roof and is not apt to be heard. For these reasons, the panes should be of heavy wired glass. Steel bars should be fastened underneath the skylight and across the ceiling opening. Nor is that all.

Skylight windows should be kept locked. The wired glass and window locks will slow down an attempted entry. The bar should prevent a burglar from dropping through the opening to the floor below.

Floodlights should be installed on the outside of the plant, well above the street level so that areas immediately adjacent to the building can be lighted during hours of darkness when your firm is closed. Burglars avoid well-lighted buildings.

Loading platforms set into the building or located where they cannot readily be seen furnish burglars with ideal working areas. Consequently, well-constructed doors and locks are essential. This should be of heavy construction and locked from the inside. If the doors slide up or to one side, there should be locks on both the left and right sides of the doors.

Watchmen provide a valuable service to every business interested in reducing its exposure to crime losses. To the small manufacturer, however, the main problem here is cost. One watchman may not be sufficient to provide protection at all times when the business is closed, including Saturdays, Sundays, and Holidays. Consequently, two or more are often needed to afford adequate security.

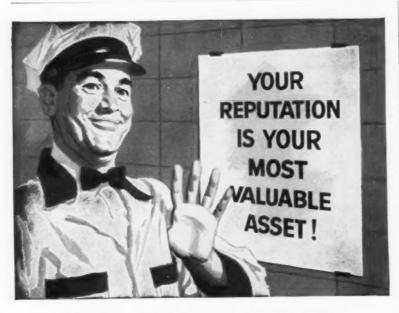
### Difficult for Some

Small businesses find it difficult, if not impossible, to justify such a recurring expense. Therefore, while watchmen are valuable in any plant protection system, other devices, such as an alarm system, should be considered if your funds available for premises protection are limited.

Burglar alarm systems can give protection for all accessible openings, such as windows, doors, skylights and partition walls. Other safeguards can be employed but none of them will immediately detect an attempted entrance into the building and transmit an alarm to the local police authorities so well as a properly installed electric alarm system.

While an alarm system does create an expense for installation and service, you will probably find that one of the many

(Continued on next page)



# ALWAYS USE FACTORY-NEW BENDIX STARTER DRIVES



It's true, you know. The most valuable property you can own in the automobile service business is your good reputation. That's why it's smart business to use only genuine, factory-new Bendix\* Starter Drives and parts when servicing

Bendix Drives. There are people in the service business—and we might as well face it—who will deliberately do shoddy work, use inferior, imitation parts for the sake of a small, temporary profit. They're a very small minority, of course, and they don't last long, generally. Most customers come to them for service just once. And a service business without repeat customers is dead. Protect your reputation—and your profits. Always insist on factorynew Bendix Drives and parts when you order from your distributor.

\*REG. U.S. PAT. OFF

Bendix · Elmira, N.Y.

ECLIPSE MACHINE DIVISION



different types of systems can be adopted to your business at a reasonable cost.

In many cases, it can be tied in with your fire detection system. In other cases, it may be sufficient to install a simple system protecting only a particular storeroom or stockroom. Furthermore, an approved burglar system may reduce your insurance cost.

Police protection is an obviously desirable service for the prevention and control of crime. All cities and towns have such protection in varying degrees, and the authorities are usually eager to provide all reasonable cooperation in safeguarding your building. It is advisable to discuss with them your particular problems and your efforts to help yourself.

But it is a mistake to rely upon the police for complete protection. Their services are spread thin, and with current expansion in plants, stores, and dwell-

"With the boys going to college, we just couldn't afford a second

ings the police cannot always keep pace with needs. Everything you do to safeguard your own premises makes the local police job easier and more effective. Safes designed to be fire resistive should not be relied upon to give burglar resistive protection. Fire resistive safes are usually no more than sheet metal shells filled with a fireproof cement mixture. Their resistence to the efforts of even an amateur cracker is sadly inadequate. Pinchbars, hammers, and cold chisels are often more than sufficient to open them and remove the cash.

There are many different types of burglar resistive safes and chests designed both for everyday use, and for business with special problems. Some have a moderate amount of burglar resistance while others are designed to provide a very high degree of resistance. Fire resistive safes containing burglar resistive chests are also available to provide both kind of protection.

In many cases the cost of a good safe is so little more than for an inferior type that it can

(Continued on page 140)



## easy cooling system profits

If you are observant enough to see the signs of a good fishing spot . . . with a Stant T-250 Precision Cooling System Tester you will find it just as easy to spot the signs of leaking in a cooling system. Persistent study

of the signs . . . on every vehicle you serve ... opens the door to Easy Cooling System Profits! New low net price of \$19.80 on the T-250 until May 1 with Bonus Package FREE.

onus Package Write for catalog to STANT MANUFACTURING CO., INC. Connersville, Indiana, ... naming your jobber.

> used on America's Finest Automobiles as Standard Equipment for a generation



## Sports Page . . .

• • • • • • • Continued from page 124

"Mr. Mayor! The ball! The ball!"

"The ball?" said Mr. Berry. "I gave it to some kid."

#### Major League, It Says Here

Well, the first major league pitch in New Jersey history was a strike thrown by Carl Erskine and called against the Phillies' Richie Ashburn. The first play with real Jersey flavor was a collaboration by Philadelphia's Willie Jones and Granny Hamner. Jones fell down backing up for a pop fly and knocked himself out of the game while Hamned stood tranquilly at his side and let the ball drop safely.

It was by no means the last

play of this sort. Before the last horrid deed was done, the whole business looked like a conspiracy to stink baseball out of the state.

Del Ennis dawdled after a drive by Gil Hodges in the first inning and converted it to a three-run double. Then while Robinson played cat-and-mouse between first and second base, Hodges tried unsuccessfully to sneak home from third and killed off the Dodgers' only scoring inning against Murray Dickson.

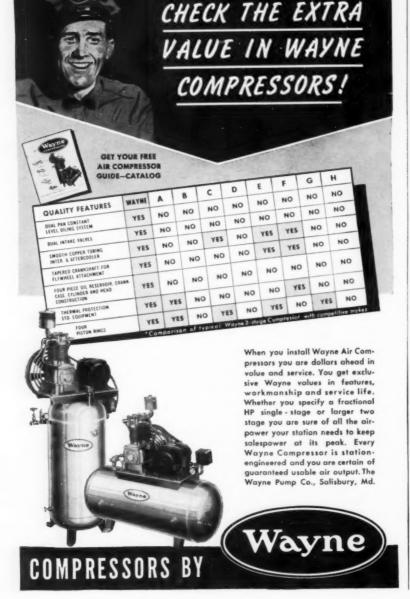
Due chiefly to boots by Robinson and Carl Furillo and a wild pitch by Erskine, Philadelphia tied the score in the third inning. In the tenth, Philadelphia went ahead, 4 to 3, whereupon Roy Campanella retied the score by doubling Snider home.

#### For This, Jersey Was Settled

At long and gruesome last, Rube Walker got Zimmer home with a fly ball, and the Dodgers had their first official victory since Oct. 4.

They had waited for it 197 days. Jersey had waited since the dawn of civilization. It required two hours, forty-three minutes, ten innings and eight errors. As the fellow says, you can take the boy out of the bush, but—

Far off on the gray horizon, a ray from the setting sun touched the towers of Manhattan. They were a million light years away.
(c) 1958 New York Herald Tribune Inc.





The man who sells

# OLDS mobility

is backed by the features with new sales appeal!



The amazing
ECON-O-WAY
CARBURETOR
... greatest advance
in fuel economy
in Oldsmobile history!

Here's another reason why Oldsmobile has rocketed into first place in the Medium Price Class . . . the amazing Econ-o-way Carburetor! Motorists throughout the country have been clamoring for more economy—and Olds has the answer! This great fuelsaving carburetor is one of the most significant engineering advancements in Oldsmobile's 60-year history. Econ-o-way carburetion means plenty to Olds Dealers . . . especially in sales to those mileage-minded prospects! And it's just one of scores of new features that add up to OLDSmobility. No wonder, in '58 as never before, it's smart to be with Olds!

## OLDSMOBILE

DIVISION OF GENERAL MOTORS . LANSING, MICHIGAN

## Why Hard Cars? . . . . . Continued from page 44

facing all of us today: Where to get service for all the wonderfully new automatic appliances that we have in our homes? Automatic washers . . . dryers . . . dishwashers . . . television sets . . . Hi-Fi systems. All are very useful or very pleasurable when they are working. But when they are not, they require

an expert to fix them. Our modern motor cars, with their automatic transmissions, power steering, power brakes, air conditioning, and various other accessories, are no different. They require expert attention from time to time if they are to continue to be useful and convenient. . . .

I believe that the job in the service station is more complicated, because we handle not just one make of car, but all cars... big or little...new or old... whatever the make or model. This creates problems with the inventory of special products or service items and specialized tools. It also means that the man-power at today's service station requires more extensive training than ever before.

Today's cars are so complicated that extra training is needed if our mutual customer -the motorist-is to have his car taken care of satisfactorily. You may say that he should take his car back to the dealer from whom he bought it for all necessary service work. Theoretically, that is the way it should work. But actually, the convenience of today's service station makes it the first place the motorist thinks of when his car needs attention. Immediate service. pick-up and delivery of his car. make the service station the overwhelming choice of the motorist for such services as oil changes, tire repairs, spark plug replacements, and many other minor mechanical services which can be rendered there more quickly and economically.

Unfortunately, the trend in the design of cars is making the situation more critical. Simple services such as replacing the spark plugs, are becoming more difficult. In addition, different techniques and tools are required for different cars. Items which should be serviced regularly are virtually impossible to reach—let alone service.

Human nature being what it is, either the service station operator takes the easy way out or he charges for the time which it takes to do the job properly. When the first situation prevails, the customer gets something less than perfect service. With the latter, the price deters the motorist from having work done

(Continued on page 138)





# M.O.A. MYSTERY MAN

# has \$500 for you

The next driver who comes into your station may be an M.O.A. "Mystery Man." Over 350 M.O.A. "Mystery Men" all over the U.S. are now making regular stops for gas and oil... waiting for you to suggest Du Pont M.O.A. Do this, and the driver will hand you a \$5.00 cash-bonus certifi-

cate. You can win several times, so suggest M.O.A. to all your customers. You also get valuable premiums with every carton you buy.



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DU PONT Nº "7" M.O.A.

Chilton's MOTOR AGE, APRIL, 1958

## Why Hard Cars? . . . . . . Continued from page 136

as it becomes necessary. Either way the motorist pays.

This complication of service is a very real problem and one that I think everyone should give some serious thought to. Let's be specific. Let me give you some for instances. I think everyone agrees that oil-filter cartridges are necessary, and, further, I don't think anyone will disagree that they must be replaced regularly if the customer is to benefit.

I have seen some that take 20 minutes to change and even then it is a very difficult job to do properly. There is a great risk of crimping or damaging the gasket with a consequent loss of

all the oil. Engines have been ruined in this way. Now you can say that if the workman had been more careful it would not have happened; but I say, if the filter had been more accessible there would have been much less possibility of its happening.

Not too long ago, you could get new spark plugs installed free at any service station. The dealer was satisfied with the \$3.00 or so profit that he made on a set of plugs. Today the job has become so difficult in many cars, that the dealer must charge for the time spent in installing them. For example, one factory allows 11/4 hours to install eight spark plugs in one of their new models. With the price you must pay today for a man who can install these plugs without crossing the threads or breaking the porcelain, you would have to charge also \$5.00 if you want to show any profit on the job. . . .

A very recent example of somewhat-less-than-perfect coordination was brought about by the introduction of the various cars with air suspensions. Many lifts used in the service station to get the car up in the air were not capable of handling cars with these new suspensions when they first came out. Eventually, of course, the manufacturers of these lifts have made adapters available-at \$50.00 or so a set -which have made it possible for service stations to handle the new cars.

I am not objecting to having to buy adapters this year, but what assurance will I have that I won't need a different set next year? In addition, I would like to question the apparent lack of coordination between the car manufacturers and the lift manufacturers which brought about the delay in the availability of these adapters. Closer coordination would have made it possible to handle these cars immediately. Instead a few dealers



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Refined from 100% Bradford Pennsylvania Crude Oil, nature's "miracle molecule" at its best.

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Bradford, Penna.
Lubrication Specialists since 1881

had to find out the hard way that they were not equipped to lift these particular models. This was expensive for the dealers and certainly left a bad taste in the mouth of the customer.

I would like to see the car manufacturers tackle the problems that I have mentioned with the same speed and ability with which they have handled the solution of similar problems in the automatic transmission field.

There, I think, cooperation between the car manufacturers and the petroleum industry has been perfect. These units are now simple to service through easily accessible fill-pipes and drains, A special fluid is required for automatic transmissions but one product is suitable for all automatic transmissions. It is not necessary for the service

Popularity comes to the man who lends a hand, rather than trying to lend advice.

station operator to carry in stock a large variety of different materials to handle the various makes of cars.

Is it not possible for an industry, which can build 5 or 6 million cars a year, to agree on a few basic sizes and shapes of such things as oil-filter cartridges and batteries? There just cannot be that much difference in the way various oil-filters operate or in the various sizes and shapes of batteries. A little cooperation along these lines would be beneficial to the customer as well as helpful to the service station operator. With a smaller inventory to maintain, the service station operator would be much more likely to have the product that the customer needs at any time.

Stock would turn over faster and the customer would be more certain of receiving factoryfresh merchandise in top condition.

At the same time, by making

accessories and equipment which require periodic servicing more accessible, the manufacturer would be assuring the car buver that the required servicing would be performed. This was done with fill-pipes for automatic transmissions by moving them out to where the level could be easily checked and any necessary fluid added. It was done many years ago when batteries were taken from beneath the front seat and put under the hood.

It can be done again if you will put your minds to it. . . . On this business of when to change oil. If you can believe what you read in some magazines, it is never required. Now you and I know that that "just ain't so." But have we told the public so in the same magazine where they read the first bit of misinformation? I do not believe we have. and I think we are very remiss in not having done so.

(Continued on page 140)



We got the biggest response in our history when we asked mechanics if they wanted this amazing piece of equipment!

#### INCREASE FLAT-RATE PROFITS-NO HELPER NEEDED FOR THESE JOBS!

- Starts an engine without ignition . Checks electrical equipment!
- Permits intermittent turnover of engine!
- Allows for continuous turnover of engine without engine firing!
- Acts as a flashlight!
- Locates blown fuses!

- Locates broken circuits!
- By-passes any switch!
- · Serves as a test lamp!
- · Acts as a direct switch!
- · Acts as an intermittent switch!

ASK YOUR JOBBER.

Chilton's MOTOR AGE, APRIL, 1958

## Why Are Cars Hard? . . . . Continued from page 139

As I understand it, the mileage at which crankcase oil should be changed depends on the rate at which it is contaminated, which, in turn, depends on the way the car is driven. In fact, a few years ago the A. P. I. issued a set of recommendations based on these factors. However, I do not recall having seen these

instructions repeated in any Owners' Manuals for new car buyers.

Now if you agree with these figures, why not make sure that the motorist hears about them? If you do not agree with these figures, why not work out a set with the A. P. I. Lubrication Committee.

As it stands now, the motorist is not only unsure as to when he should change his oil, he is not even sure it needs changing at all. With anything as important as regular oil changes with their significant effect on the performance and the life of an engine, it is vital that our mutual customer, the motorist, be informed. Otherwise such things as sticking hydraulic valve lifters, clogged rings with high oil consumption, and a variety of other ills will befall him. Since the blame for such poor performance is either directed at the brand of oil used or at the make of car involved. I would think you would be vitally interested in joining forces to combat this situation. . . .

People who live in the past have a big advantage —it's cheaper.

#### Managing Money . . . .

Continued from page 133

largely be offset by the resulting reduction in insurance cost. Safe installations should be made where they can be easily observed by a guard or policemen. In addition they should be illuminated by an overhead light left burning when the premises are closed.

Burglars tend to shun lighted areas under observation because of the greater risk of detection. If this procedure cannot be carried in every instant, it should be followed wherever practicable. Small safes should be installed in a concrete casing to prevent their removal from the building. Actually of course no safe or chest is absolutely burglar-proof-if yeggs have enough time to work on it. Sufficient time is usually not available when the safe is where it belongs. However if it can be removed, the burglars can blow it open at their leisure. A properly constructed concrete casing around a small safe will prevent this.



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Yes, the new Lamson & Sessions' labels are a great help to jobbers and dealers who carry replacement fasteners in stock. It's another extra Lamson customer service... at no extra cost.

The LAMSON & SESSIONS Co.

PPEPS CEIQEE

#### Valve Troubles . . . . . .

Continued from page 39

Do not attempt to straighten a bent rod. It is a good idea to find out why a rod is bent. If you don't have a dial gauge handy to check the bend or runout, roll the rod on a flat surface. If rod wobbles, it is bent.

Tappet wear is often overlooked in a valve job. A badly worn tappet leans out of alignment as the cam lobe rotates against the foot of the tappet. In turn, the tappet tilts in its guide as it bears against the end of the valve stem. This results in a reduction in valve clearance and undue side wear in the valve guide. All tappet adjusting screws that are worn hollow or lopsided should be replaced or ground to proper contour to insure that the tappet has a straight push on the valve.

Clean and inspect all hydraulic lifters. Check valve spring on a spring compression tester. But this will not tell the whole story. A spring that leans to one side can easily show as standard on compression tests but can cause misalignment of the valve in operation. Also, rough or uneven spring ends can cause a side pressure which tend to wear both the valve stem and valve guide in an oval pattern.

Shimming the spring with washers can be helpful in some cases although most mechanics avoid this practice. Bear in mind that on some types of guides, the spring is held concentric with the valve by resting in a bottom recess. If the washers fill this, the spring can shift at will and cause an uneven pull on the valve. Also don't forget, a heavy shim can cause a closely wound spring to hit bottom when the valve is in open position.

#### What About Weak Springs?

Weak springs do not pull valves down firmly on their seats, results in valve "bounce" (Continued on page 143)



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## Calendar of Coming Events

**Dealers Conventions** 

Apr. 27-29—Automobile Dealers Assn. Alabama, Buena Vista Hotel, Biloxi, Miss.

May 5-7-Joint Convention, Washington State Automobile Dealers Assn. and the Motor Dealers Assn. of British Columbia, Empress Hotel, Victoria, B. C.

May 8-9—Oregon Automobile Dealers Assn., Eugene Hotel, Eugene, Ore. May 11-13-Idaho Automobile Dealers Assn., Lewiston, Idaho.

May 11-14-36th annual convention. Automotive Engine Rebuilders Assn., Sheraton-Park Hotel, Washington.

May 12-13 -Pennsylvania Automotive Assn., Haddon Hall Hotel, Atlantic City, N. J.

May 18-20—Texas Automotive Dealers Assn., Galvez Hotel, Galveston.

June 8-9-Automotive Dealers Assn. of Indiana, Mirott Hotel, Indianapolis. Aug. 17-18—Georgia Automobile Dealers Assn., General Oglethorpe Hotel, Savannah.

Sept. 7-8—Colorado Automobile Dealers Assn., Antlers Hotel, Colorado Springs.

Sept. 7-9—Wyoming Automobile Dealers Assn., Lander, Wyoming.

Sept. 14-16 - Michigan Automobile Dealers Assn., Pantlind Hotel, Grand Rapids.

Mar. 31-Apr. 1 - N-A-P-A National Business Conference, Sheraton-Park Hotel, Washington, D. C.

Mar. 31-Apr. 2—Canadian Automotive Wholesalers & Manufacturers Assn. convention, Royal Alexandra Hotel, Winnipeg, Manitoba. Apr. 23-25—1958 Spring Booth Con-

ference of Automotive Wholesalers and Manufacturers Representatives Bon Air Hotel, Augusta, Ga.

May 11-14—Annual Convention, Auto-motive Engine Rebuilders Assn., Sheraton-Park Hotel, Washington,

15-18 - 1958 National Truck, Trailer & Equipment Show, Great Western Exhibit Bldg., Los Angeles, Calif.

May 21-23—American Petroleum Institute Div. of Marketing, midyear meeting, Roosevelt Hotel, New Or-

May 26-27-N-A-P-A National Business Conference, Sheraton-Fontenelle Ho-tel, Omaha, Neb. June 8-13—1958 SAE Summer Meet-

ing, Chalfonte-Haddon Hall, Atlantic City, New Jersey.

June 15-16-Automotive Wholesalers Association of Alabama convention, Birmingham.

Aug. 11-14—1958 SAE National West Coast Meeting, The Ambassador, Los Angeles, California.

Oct. 20-22-1958 SAE National Transportation Meeting, Lord Baltimore Hotel, Baltimore, Maryland. vv. 5-6—1958 SAE National Fuels and Lubricants Meeting, The Mayo,

Tulsa, Oklahoma,

#### Champion Names Mexican Member

The Champion Spark Plug Company recently announced the formation of a Mexican subsidiary to produce and distribute Champion spark plugs in Mex-

The new subsidiary, Bujias Champion de Mexico, will locate its plant in Industrial Vallejo, a new industrial section of Mexico City. Supervisory personnel are being trained at Champion's Toledo, Ohio headquarters. Toledo will also furnish engineering and technical services, as well as machinery, tooling and inspection devices.

The new subsidiary will serve Mexican automobile manufacturers and distributors of replacement parts.

## A GREAT, NEW Hoy ggy-Back" Battery Tester!

- Removable meter with "BUILT-IN" MEMORY
- . LOAD TESTS or OPEN CIRCUIT TESTS on all 12 and 6 volt batteries
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Actually show battery condition with this HOYT Tester—just hand your customers the removable meter to read while you're testing each cell. Point out that the adjustable pointer is set at the first cell reading and all other

readings should be the same, or the battery is questionable! High accuracy meter has shatterproof, water-repellent face and reads to 1 100th of a volt on a 4-color expanded scale. NO GUESS WORK—FIND WEAK CELLS FASTER—MAKE NEW BATTERY SALES EASIER!

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Available in 4 sizes, ranging from 5-drawer model to 23drawer model. Constructed so smaller models can be added to. Drawers can be removed and are interchangeable, but are hinged to prevent being pulled out accidentally.

Write for literature and low prices on this shop necessity.

## Lockport Steel Fabricators, Inc.

Lockport, Illinois

#### Valve Troubles . . . . . Continued from page 141

or "flutter" at high engine speeds. This causes build-up of deposits on valve seats and faces, leakage, overheating and finally valve burning. Springs with too great tension tend to overload the valve train, cause undue valve wear.

In reassembly, valve springs should not be compressed more than is required to install the retainer keys. Springs that are over-compressed may lose a certain amount of total spring tengion

Valve stem diameter should be checked with a micrometer at more than one spot. Valves worn beyond manufacturers' specifications should not be used. Otherwise the stem-to-guide clearance will be incorrect. Valve head should be concentric with the stem. Maximum face run-out should be under .0002 in. Tip of the valve stem should be refaced to a flat surface, square with the stem. The edge of the tips should be beveled.

When placing the valve in the refacer, it should be chucked (gripped) on the unworn portion of the stem as close to the head as convenient.

#### Refacing Process

During refacing, pass the abrasive wheel slowly and uniformly, not in a rapid and jerky motion. Do not run the abrasive wheel off the edge of the valve face. Keep it in contact with the valve face to maintain uniform cutting pressure. When completed, move the abrasive from the valve. Do not take extremely light finishing passes. Wheel vibration and valve stem "spring" will cause chatter marks.

In refacing the valve seat, be sure the end of the guide is not marred or dented and that it does not present a burned or warped tip. Any irregularity at the tip will interfere with proper seating of the reseater pilot. This must fit firmly in the guide to maintain alignment and circularity of the valve seat.

The spindle of the reseater must fit snugly on the pilot to avoid chattering during the high speed rotation of the abrasive. Do not exert too much pressure to force the abrasive to cut. Cutting action from speed is more satisfactory than from pressure.

Begin reseating by using a coarse abrasive stone to remove the "glazed" surface on the seat caused by pounding of the valve. Finish with a fine abrasive.

After the seat is refaced, its width must be reduced to proper dimension. This is done by "top-

(Continued on page 144)



## ... and don't forget the shocks!

Brake check? While you've got the wheel off, don't forget the shocks!

Any service that brings a car into your station . . . an oil change, lubrication job, muffler inspection . . . that's your opening for extra earnings when you check the shocks, too.

Take a moment to inspect shocks for wear or leaks. Chances are, they'll need replacing. Build shock business . . . sell Briggs Shocks for driving safety, riding comfort, and economy.

Briggs Double-acting Shock Absorbers are available from stock at your N·A·P·A Jobber's. Call him—he's a good man to know. The Briggs Shock Absorber Co., Cleveland 15, Ohio.

DOUBLE-ACTING
SHOCK ABSORBERS



ping" the seat with a wide angle abrasive of 15° or 20°. Should the seat not finish to a uniform width, it can be corrected by "throating" with an abrasive wheel having a sharp angle of 60° or 75°.

Valve tappet clearance is critical. If the clearance is too small. the valves will not close properly when hot and burning will soon occur. If the tappet clearance is excessive, the ramp portion of the cam will be inoperative and the valves will be lifted and seated with a terrific impact causing excessive loads on the valve train and greatly increasing the possibility of valve breakage particularly at high speeds.

Perhaps the best approach to setting valve clearance properly is to first make a cold setting and allow .002 to .004 in. more clearance than recommended. Run the engine until oil and water are at normal running temperatures. Retorque the head studs, then



"I brought along a spare fuel pump, carburetor, fan belt and voltage regulator, but I forgot to get gas.

reset the valve clearances to factory specifications. If valves with different metal than the originals are used, the valve manufacturers recommendation should be adhered to. The new valve metal may have different expansion characteristics that could call for more or less valve clearance.

Valve trouble can be avoided by properly tensioning head studs. All engine manufacturers are very explicit as to the manner and sequence in which the cylinder head bolts should be drawn down.

It seems to be the path of least resistance to pull hard-toget-at studs down extremely tight and forget them-such as the ones under rocker assembly, horn brackets, air compressor mounts, etc. Unless care is used when torquing the head bolts, it is actually possible to unseat the valve before the engine is even run.



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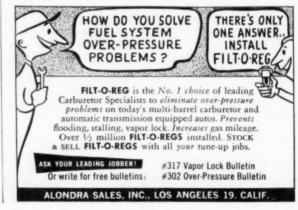
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CATALOG MA-4

KEM Manufacturing Co., Inc.

Fair Lawn, New Jersey

Flooded Cars . . . . .

Continued from page 45

pump should also be taken apart and cleaned.

If the car has the convenience of automatic transmission, the fluid level should naturally be checked. If water is discovered it should be drained and flushed.

Occasionally you will be faced with a car that has been completely submerged. A thorough housecleaning is in order here, but start with the engine. A quick clear-water spraying will remove most of the mud. After this, the engine should be dismantled, cylinder heads removed, and valves, pistons, bearings and the like cleaned. The same applies to automatic transmissions and the differential. Also, the windshield wiper motor should be dismantled and lubricated.

The car's interior, probably a deplorable sight of mud and grime, should be washed with clear water and then blown with compressed air. Generally, upholstery and panel instruments will have to be replaced. Door panels should be removed and window regulators lubricated.

In short, every working part that was submerged should be lubricated. Incidentally, on page 45 are the check points that appeared on the Palomar Garage's special damage form. You might do well to clip the page, as well as remembering Mr. Fanucci's story. Mother Nature is notoriously unpredictable and equally punishing.





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NO. 410
HEAVY-DUTY PLIER

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After completing the two week

course, the service managers will conduct schools for 500 authorized BMC dealers throughout the country. The school's second week will prepare distributor service managers for field instruction at the dealer level. In conducting dealer schools they will be assisted by service executives from the central office of Hambro Automotive Corporation, BMC representative for this country.







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See Page 101

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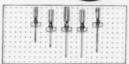
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## THE LAST





Suzy: "Did that course in English grammar help your boy friend any?"
Patsy: "Not at all. He still ends every sentence with a proposition.



The headed-for-vacation garageman put down the heavy suitcases. Looked dejectedly down the track at the departing railroad train. "If you hadn't been so long getting ready," he said to his wife, "we would have caught that train.

"Maybe." she retorted. "But if you hadn't rushed me so, we wouldn't have to wait so long for the next one!"

Traffic officer walked up to a lady driver who had just disregarded his signal to stop, "Don't you know what I mean when I hold up my hand?"
The lady answered sweetly: "Certainly I know, Haven't I been a school teacher for 20 years?"

Two New Jersey state troopers stopped a driver on a routine check stopped a driver on a routine check and asked to see his operator's permit. After fumbling in his pockets and wallet, the man finally handed them a piece of paper bearing not the slight-est resemblance to a driver's license. "What's this for?" one of the troopers asked.

"Well, while I'm looking," came the answer, "I thought you might like something to read."

Service manager: "Pat, your nose is suspiciously rosy this morning. What do you think made it so red?"
Pat: "Sure'n that's easy...'Tis the reflection of me soul blushing with pride at me ability to mind me own business!"

A lot of money doesn't always bring happiness. A fellow with fixe million dollars is no happier than a man with four million dollars.

Gob: "I can't marry you. We have nothing in common. You don't even know the difference between port and starboard."

Blonde: "Couldn't I look at the label on the bottle?



"Good heavens!" cried Whistler as he saw his mother on her knees scrub-bing the floor, "Have you gone off your rocker?"



"I don't care what anybody say we've got the best looking Hup-mobile in town!"

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